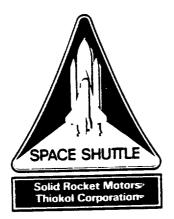
TWR-60187



Follow-on Cable Coupling Lightning Test Final Test Report

Volume II--Appendixes A, B, C, and D

31 October 1990

Prepared for

National Aeronautics and Space Administration George C. Marshall Space Flight Center Marshall Space Flight Center, Alabama 35812

Contract No.

NAS8-30490

DR No.

5-3

WBS No.

4B102-11-10

ECS No.

SS3900



SPACE OPERATIONS

P.O. Box 707, Brigham City, UT 84302-0707 (801) 863-3511

Publications No. 91230

(NACA-CP-184124) FRELUM-ON CABLE COUPLING LIGHTNING TOST. VOLUME 2: APPENDIXES A, U, C, AND D Final Test Report (Thickol Corp.) CSCL 21H 101-26195

Unclas 63/20 0333442



CONTENTS

Volume II

Appendix		<u>Page</u>
A	Resistance Measurement (cover-to-cover and cover-to-floor plate)	A-1
В	Resistance Measurements (external bond strap-to-case)	B-1
С	Resistance Measurements (internal bond strap-to-case)	C-1
D	Follow-on Cable Coupling Lightning Test Data Plots	D-1



Appendix A

Resistance Measurements (cover-to-cover and cover-to-floor plate)

DOC NO. TWR-60187 VOL.

SEC PAGE
A-1

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Resistance Measurements Cover-to-Cover and Cover-to-Floor Plate

Follow-on cable coupling lightning test. Pretest resistance measurements made on 5 May 1990:

Location	<u>Re</u>	<u>sistance</u>
	0.53	milli-ohm
Forward breakout box to case		milli-ohm
Forward breakout box to systems tunnel cover No. 1 Tunnel cover No. 1 to tunnel cover No. 2	58.00	micro-ohm
Tunnel cover No. 2 to tunnel cover No. 3		micro-ohm
Tunnel cover No. 3 to tunnel cover No. 4		micro-ohm
Tunnel cover No. 4 to tunnel cover No. 5	64.00	micro-ohm
Tunnel cover No. 5 to tunnel cover No. 6	52.00	micro-ohm
Tunnel cover No. 6 to tunnel cover No. 7	73.00	micro-ohm
Tunnel cover No. 7 to external tank attach ring	390.00	micro-ohm
External tank attach ring to tunnel cover No. 8	620.00	micro-ohm
Tunnel cover No. 8 to tunnel cover No. 9	23.00	micro-ohm
Tunnel cover No. 9 to tunnel cover No. 10	27.00	micro-ohm
Tunnel cover No. 10 to tunnel cover No. 11	30.00	micro-ohm
Tunnel cover No. 11 to tunnel cover No. 12		micro-ohm
Tunnel cover No. 12 to tunnel cover No. 13		micro-ohm
Tunnel cover No. 13 to tunnel cover No. 14		micro-ohm
Tunnel cover No. 14 to tunnel cover No. 15		micro-ohm
Tunnel cover No. 15 to tunnel cover No. 16		micro-ohm
Tunnel cover No. 16 to tunnel cover No. 17		micro-ohm
Tunnel cover No. 17 to tunnel cover No. 18		micro-ohm
Tunnel cover No. 18 to tunnel cover No. 19		micro-ohm
Tunnel cover No. 19 to aft breakout box		milli-ohm
Tunnel cover No. 1 to floor plate		milli-ohm
Tunnel cover No. 2 to floor plate		milli-ohm
Tunnel cover No. 3 to floor plate		milli-ohm
Tunnel cover No. 4 to floor plate		milli-ohm
Tunnel cover No. 5 to floor plate		milli-ohm
Tunnel cover No. 6 to floor plate		milli-ohm
Tunnel cover No. 7 to floor plate		milli-ohm
Tunnel cover No. 8 to floor plate		milli-ohm
Tunnel cover No. 9 to floor plate		milli-ohm
Tunnel cover No. 10 to floor plate		milli-ohm
Tunnel cover No. 11 to floor plate		milli-ohm
Tunnel cover No. 12 to floor plate		milli-ohm
Tunnel cover No. 13 to floor plate		milli-ohm
Tunnel cover No. 14 to floor plate		milli-ohm
Tunnel cover No. 15 to floor plate		milli-ohm
Tunnel cover No. 16 to floor plate		milli-ohm
Tunnel cover No. 17 to floor plate		milli-ohm
Tunnel cover No. 18 to floor plate		milli-ohm milli-ohm
Tunnel cover No. 19 to floor plate	0.04	HIIII-OHIII

DOC NO. TWR-60187 VOL



Appendix B

Resistance Measurements (external bond strap-to-cover)

DOC NO. TWR-60187 VOL.

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Resistance Measurements External Bond Strap-to-Case

External bond strap resistance measurements made on 7 May 1990:

Bond Strap No.	Resistance	<u>Code</u>	<u>Definitions</u>
Bond strap No. 1	108.0 micro-ohm	TH	TRADUCT 2912, holes in bond strap
Bond strap No. 2	218.0 micro-ohm	TN	TRADUCT 2912, notched bond strap
Bond strap No. 3	218.0 micro-ohm	KN	K5NA adhesive, notched bond strap
Bond strap No. 4	353.0 micro-ohm	KB	K5NA adhesive, braided bond strap
Bond strap No. 5	91.0 micro-ohm	TB	TRADUCT 2912, braided bond strap
Bond strap No. 6	86.0 micro-ohm	EB	ECCOBOND 56C, braided bond strap
Bond strap No. 7	149.0 micro-ohm	TB2	TRADUCT 2912, braided bond strap, 2 in.
Bond strap No. 8	548.0 micro-ohm	TN	TRADUCT 2912, notched bond strap
Bond strap No. 9	117.0 micro-ohm	EB	ECCOBOND 56C, braided bond strap
Bond strap No. 10	5.9 milli-ohm	EN	ECCOBOND 56C, notched bond strap
Bond strap No. 11	197.0 micro-ohm	KH	K5NA adhesive, holes in bond strap
Bond strap No. 12	437.0 micro-ohm	TH	TRADUCT 2912, holes in bond strap
Bond strap No. 13	347.0 micro-ohm	EB2	ECCOBOND 56C, braided bond strap, 2 in.
Bond strap No. 14	110.0 micro-ohm	KB	K5NA adhesive, braided bond strap
Bond strap No. 15	529.0 micro-ohm	EN	ECCOBOND 56C, notched bond strap
Bond strap No. 16	105.0 micro-ohm	TS	TRADUCT 2912, solid bond strap
Bond strap No. 17	877.0 micro-ohm	KS	K5NA adhesive, solid bond strap
Bond strap No. 18	563.0 micro-ohm	ES	ECCOBOND 56C, solid bond strap
Bond strap No. 19	140.0 micro-ohm	TS	TRADUCT 2912, solid bond strap

E = ECCOBOND 56 C bonding adhesive T = TRADUCT 2912 bonding adhesive

Default braided bond strap is 3-in. wide

All solid, notched, and holed bond straps are 4-in. wide

DOC NO.	TWR-60187	1	VOL
SEC		PAGE	
	ĭ		R-2

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K = K5NA adhesive

S = Solid metal bond strap, no holes, no notches, and no braids

N = Notched edged metal bond strap, no holes, and no braids

B = Braided metal bond strap, no holes, and no notches

H = Holes metal bond strap, no notches, and no braids

^{2 = 2-}in.-wide bond strap



Appendix C

Resistance Measurements (internal bond strap-to-cover)

DOC NO. TWR-60187 VOL

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Resistance Measurements Internal Bond Strap-to-Case

Internal bond strap resistance measurements made on 7 Jun 1990:

Bond Strap No.	Description/Position	Resistance
Bond strap No. 1	Under tunnel cover No. 1	1.1 milli-ohm
Bond strap No. 2	Under tunnel cover No. 2	2.6 milli-ohm
Bond strap No. 3	Under tunnel cover No. 3	6.9 milli-ohm
Bond strap No. 4	Under tunnel cover No. 4	0.7 milli-ohm
Bond strap No. 5	Under tunnel cover No. 5	0.5 milli-ohm
Bond strap No. 6	Under tunnel cover No. 6	1.5 milli-ohm
Bond strap No. 7	Under tunnel cover No. 7	1.0 milli-ohm
	Under tunnel cover No. 8	0.8 milli-ohm
Bond strap No. 8	Under tunnel cover No. 12	4.0 milli-ohm
Bond strap No. 9		0.5 milli-ohm
Bond strap No. 10	Under tunnel cover No. 13	3.6 milli-ohm
Bond strap No. 11	Under tunnel cover No. 19	o.6 imiii-oiiii

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Appendix D

Follow-on Cable Coupling Lightning Test Data Plots

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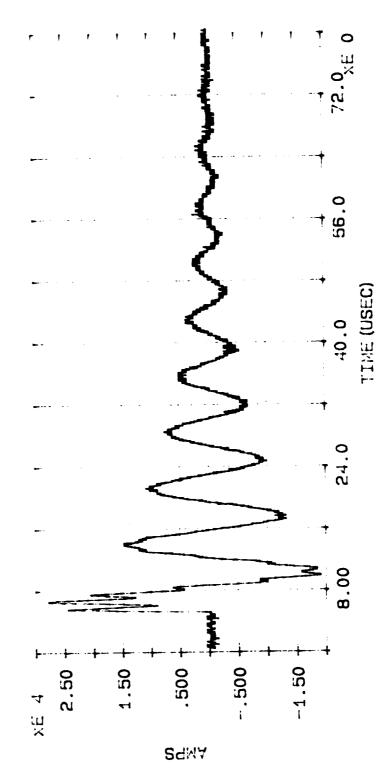
MARY MEASUREMENT: INPUT CURRENT

) :	00	
	05,'10,'90	
	DATE:	

TIME: 10: 55: 37.91
FILE: C:\CAT\DATA4\M1100.001

FILE: C:\CAT\DATA4\MII
MAX CURRENT =: 2.907E4

ACTION INTEGRAL = 2.767E3



INJECTION CURRENT WAVEFORM, PLOT #1, ATTACH POINT #1, DISCHARGE #1

MARX d1/dt

05/10/30 DATE:

TIME:

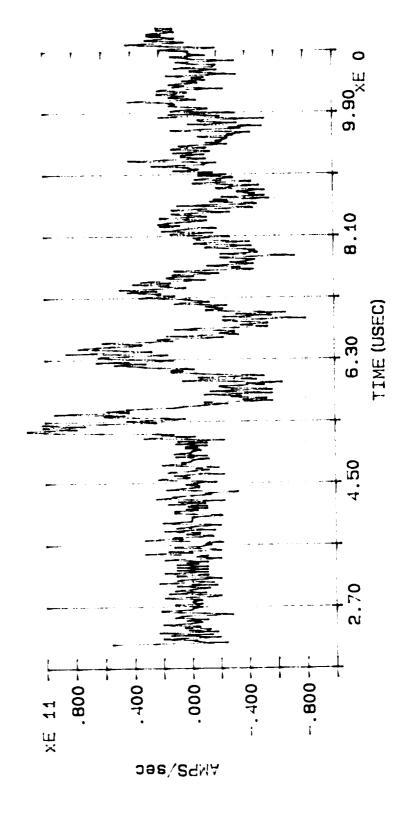
10: 46: 19,59

C:\CAT\DATA4\MI100.001

FILE

u MAX di/dt

1.168E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #2, ATTACH POINT #1, DISCHARGE #4

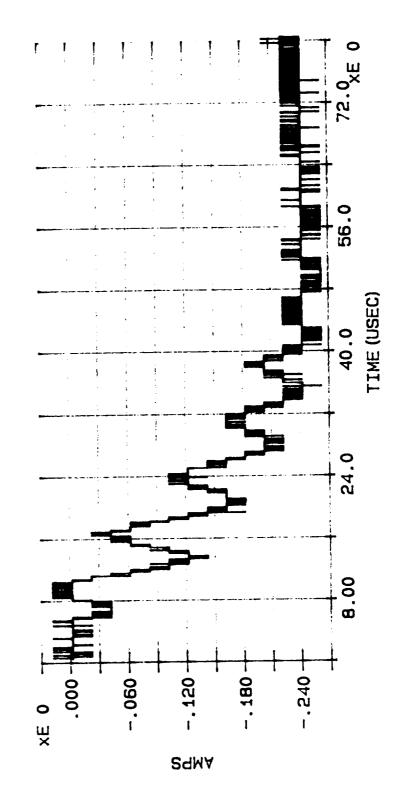
MARX MEASUREMENT: CABLE CURRENT

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DATE:
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TIME: 17: 37: 39.04

FILE: C:\CAT\DATA4\MC106.001

MAX CURRENT = -2.821E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #1) PLOT #3, ATTACH POINT #1, DISCHARGE #1

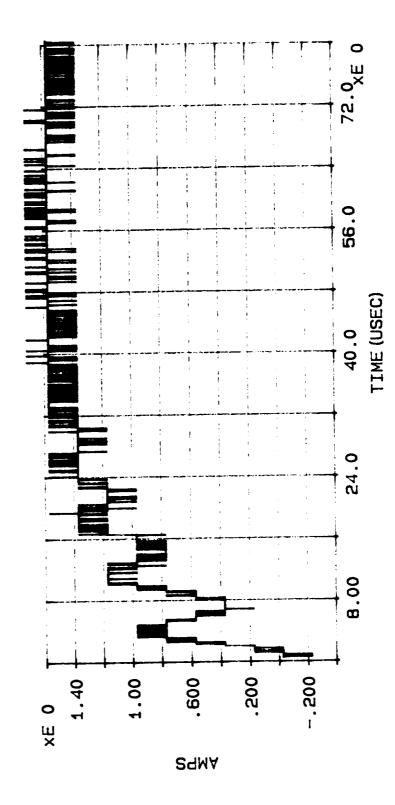
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/10/90

TIME: 17: 42: 06.53

FILE: C:\CAT\DATA4\MC112.001

MAX CURRENT = 1.773E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #1), PLOT #4, ATTACH POINT #1, DISCHARGE #1

MARX MEASUREMENT: INPUT CURRENT

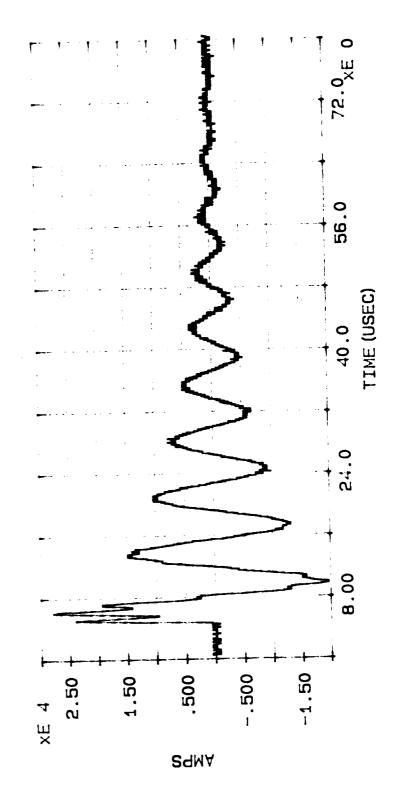
06/01	
05/1	
DATE:	

TIME: 11: 26: 42.52

FILE: C:\CAT\DATA4\M1100.002

MAX CURRENT = 2.784E4

ACTION INTEGRAL = 2.824E3



INJECTION CURRENT WAVEFORM, PLOT #5, ATTACH POINT #1, DISCHARGE #2

MARX di/dt

05/10/80 DATE:

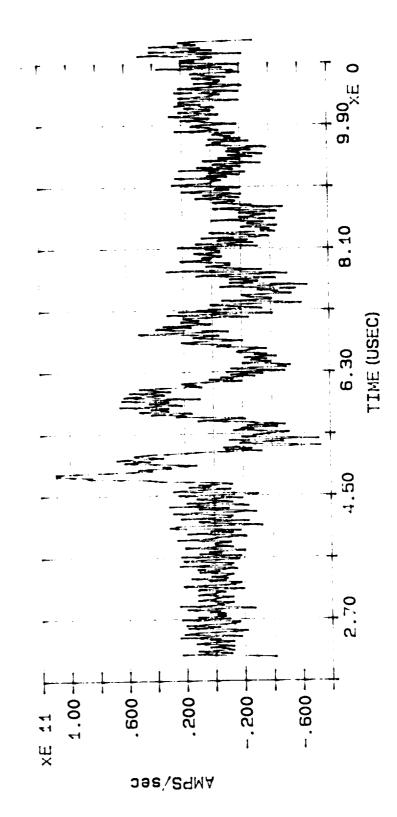
TIME:

11: 22: 49.47

C:\CAT\DATA4\MI100.002

FILE

1.099E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #6, ATTACH POINT #1, DISCHARGE #2

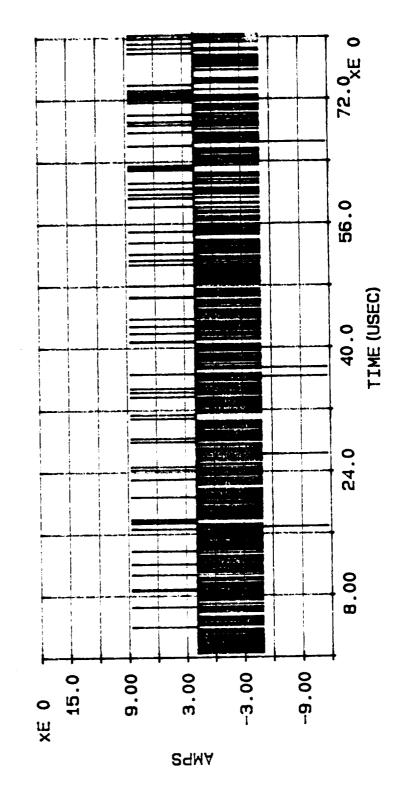
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/10/90

TIME: 17: 46: 47.14

FILE: C:\CAT\DATA4\MV106.002

MAX VOLTAGE = -1.170E1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #5), PLOT #7, ATTACH POINT #1, DISCHARGE #2

MARX MEASUREMENT: INPUT CURRENT

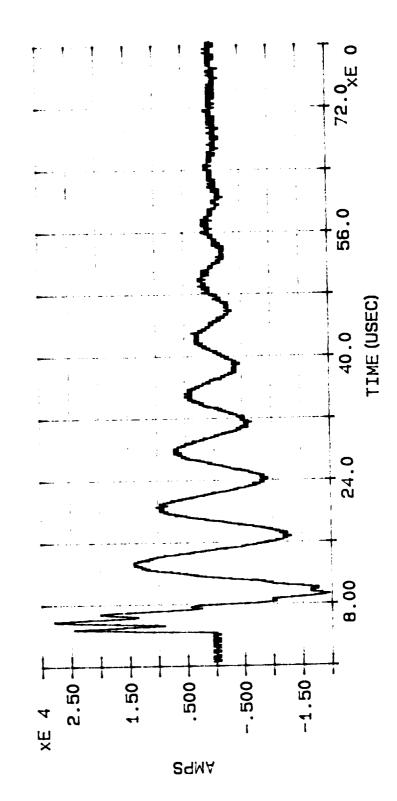
05/10/30	
DATE:	

TIME: 11: 48: 33.10

FILE: C:\CAT\DATA4\M1100.003

MAX CURRENT = 2.850E4

ACTION INTEGRAL = 2.780E3



INJECTION CURRENT WAVEFORM, PLOT #8, ATTACE POINT #1, DISCHARGE #3

MARX d1/dt

DATE: 05/10/90

TIME: 11: 56:

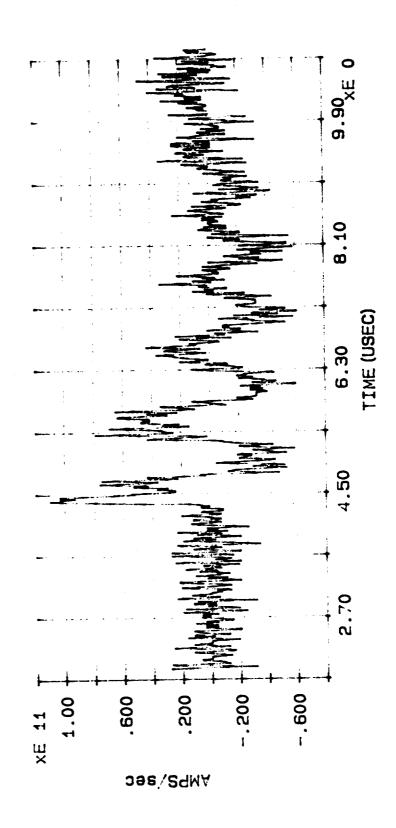
11: 56: 51.93

•

C:\CAT\DATA4\MI100.003

AX di/dt =

1.099E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #9, ATTACH POINT #1, DISCHARGE #3

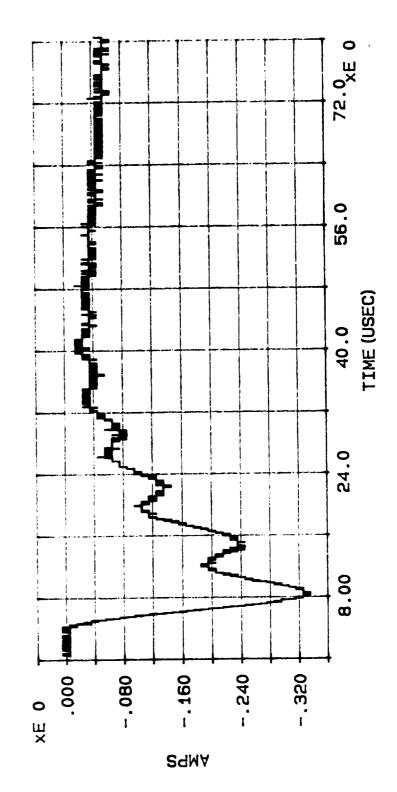
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/10/90

TIME: 47: 52: 24.55

FILE: C:\CAT\DATA4\MC107.003

MAX CURRENT = -3.353E-1

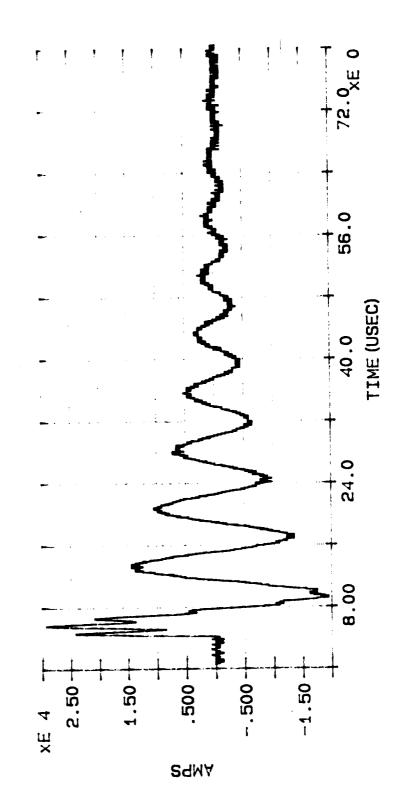


SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #8), PLOT #10, ATTACH POINT #1, DISCHARGE #3

MARX MEASUREMENT: INPUT CURRENT

05/10/90	
DATE:	!





INJECTION CURRENT WAVEFORM, PLOT #11, ATTACH POINT #1, DISCHARGE #4

MARX di/dt

05/10/90 DATE:

TIME:

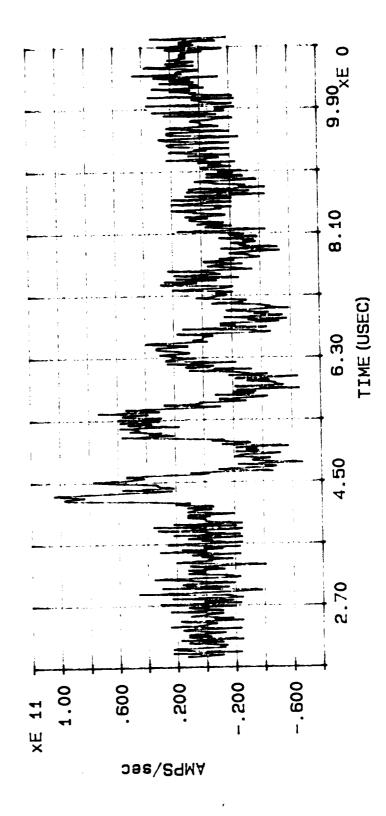
12: 47: 34.36

FILE:

C:\CAT\DATA4\MI100.004

MAX d1/dt

1.044E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #12, ATTACH POINT #1, DISCHARGE #4

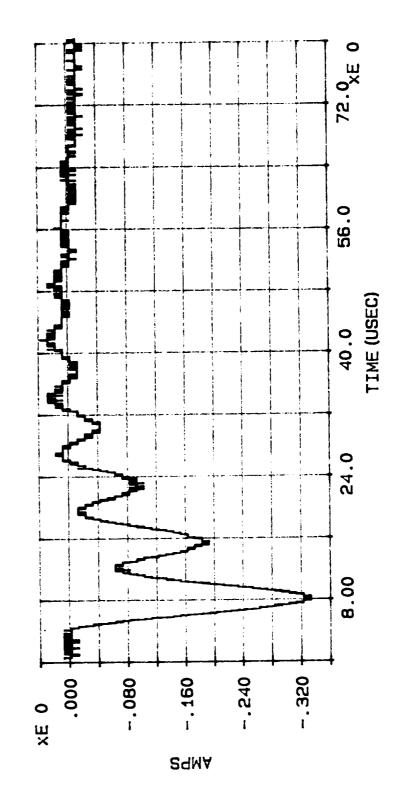
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/10/90

TIME: 17: 56: 21.50

FILE: C:\CAT\DATA4\MC1007.004

MAX CURRENT = -3.433E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #11), PLOT #13, ATTACH POINT #1, DISCHARGE #4

MARX MEASUREMENT: CABLE CURRENT

05/10/90 DATE:

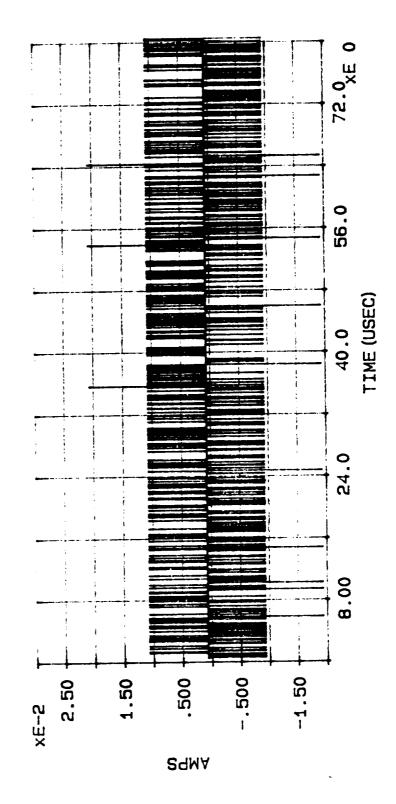
TIME:

18: 00: 25.97

C:\CAT\DATA4\MC111.004

FILE

2.078E-2 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #11), PLOT#14, ATTACH POINT #1, DISCHARGE #4

MARX MEASUREMENT: INPUT CURRENT

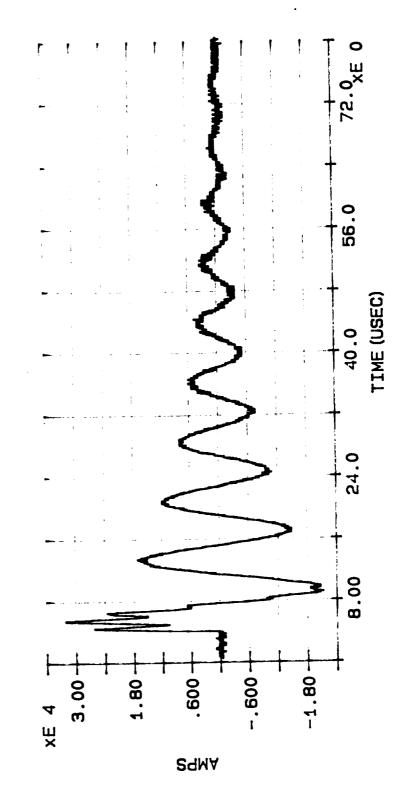
DATE: 05/10/90

TIME: 16: 31: 30.07

FILE: C:\CAT\DATA4\M1100.005

MAX CURRENT = 3.341E4

ACTION INTEGRAL = 3.814E3



INJECTION CURRENT WAVEFORM, PLOT #15, ATTACH POINT #1, DISCHARGE #5

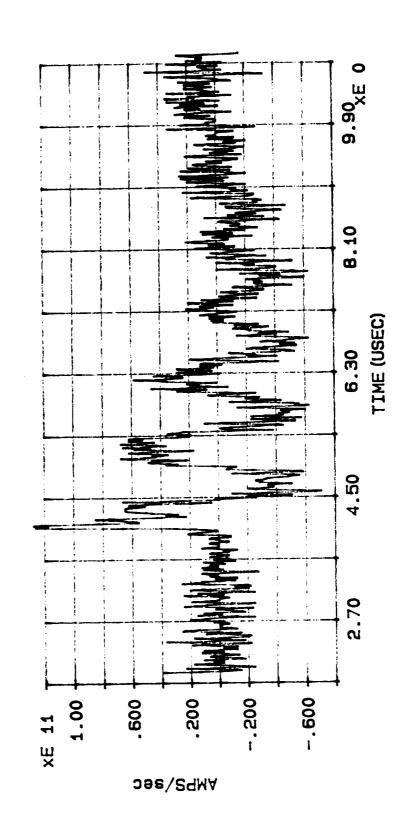
MARX d1/dt

05/10/30	16: 35: 57.01
DATE:	TIME:

16: 35: 57.01 FILE:

C:\CAT\DATA4\MI100.005

1.275E11 MAX d1/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #16, ATTACH POINT #1, DISCHARGE #5

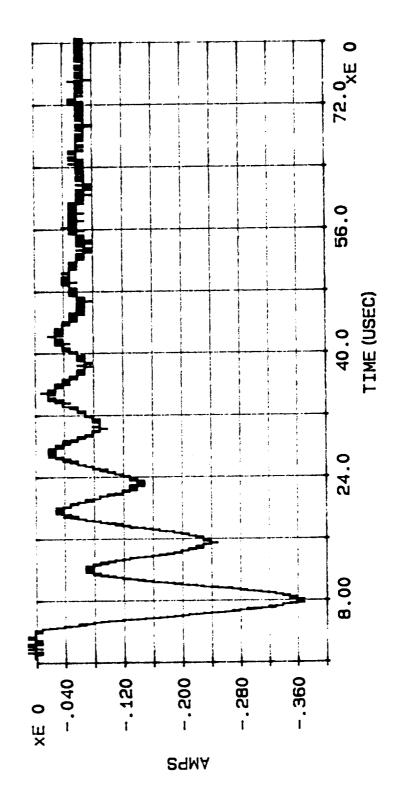
MARX MEASUREMENT: CABLE CURRENT

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18: 05: 02.96 TIME:

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-3.684E-1 MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #15), PLOT #17, ATTACH POINT #1, DISCHARGE #5

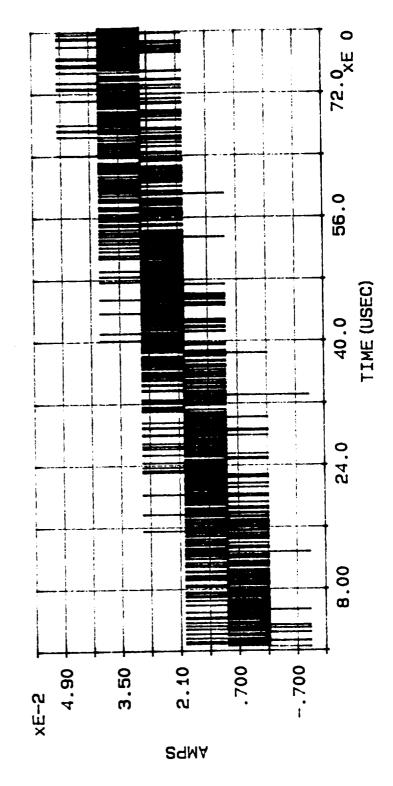
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/10/90

TIME: 18: 09: 50.50

FILE: C:\CAT\DATA4\MC111.005

MAX CURRENT = 4.992E-2



SHORT CIRCUIT CURRENT INDUCEL INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #15), PLOT #18, ATTACH POINT #1, DISCHARGE #5

MARX d1/dt

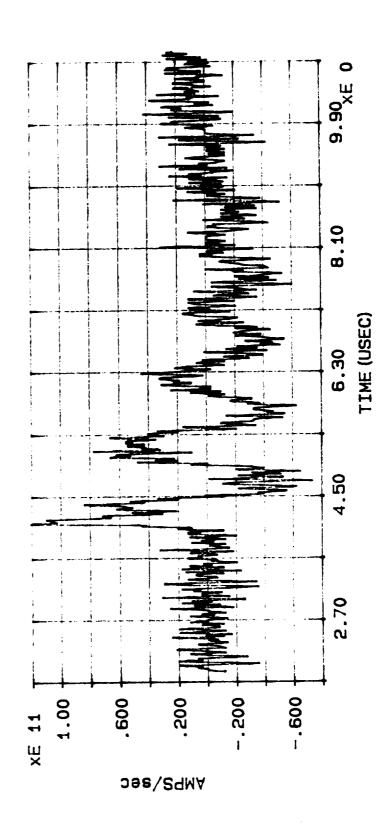
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MAX d1/dt

1.210E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #20, ATTACH POINT #1, DISCHARGE #6

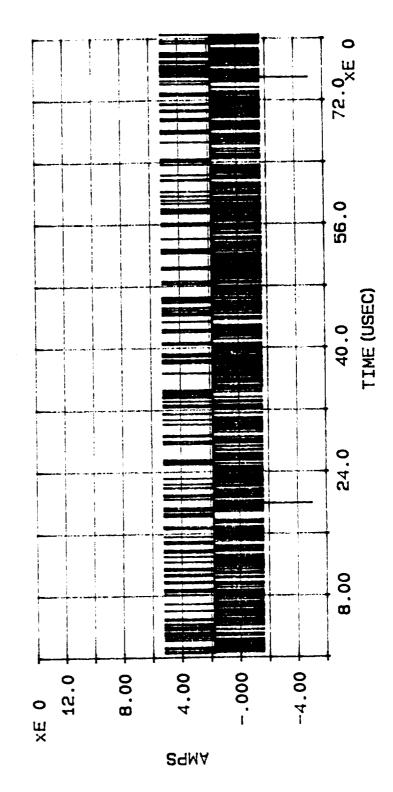
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/10/90

TIME: 18: 15: 23.40

FILE: C:\CAT\DATA4\MV107.006

MAX VOLTAGE = 5.226E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #19), PLOT #21, ATTACH POINT #1, DISCHARGE #6

MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/10/90

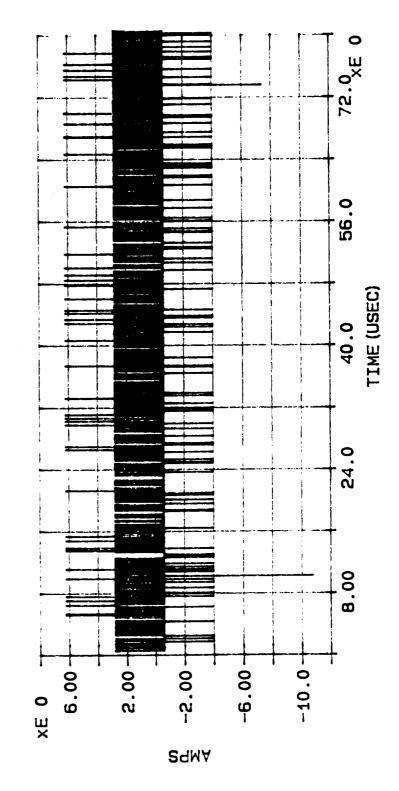
TIME: 18: 32: 15.35

18: 32: 15. 35

C:\CAT\DATA4\MV111.006

FILE:

MAX VOLTAGE = -1.079E1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #19), PLOT #22, ATTACH POINT #1, DISCHARGE #6

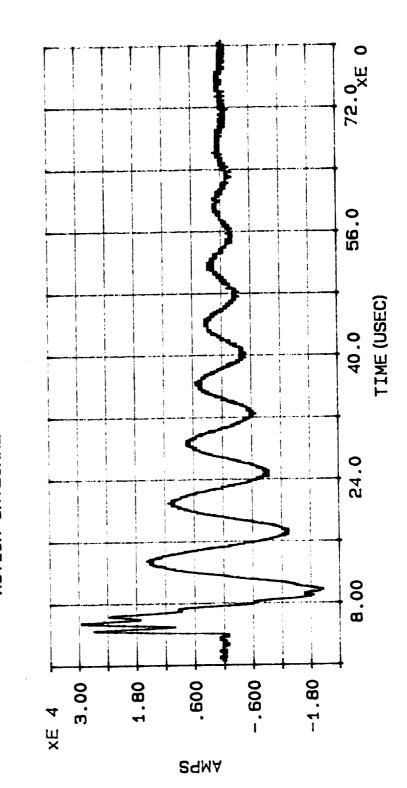
MARX MEASUREMENT: INPUT CURRENT

7 10/ 30	3: 54: 35.1
DATE: 05/	TIME: 16:

4E: 16: 54: 35.13 .E: C:\CAT\DATA4\MI100.007

FILE: C:\CAT\DATA4\MI10
MAX CURRENT = 3.021E4

ACTION INTEGRAL = 3.353E3



DISCHARGE #7 INJECTION CURRENT WAVEFORM, PLOT #23, ATTACH POINT #1

MARX d1/dt

05/10/90

DATE:

17:00:25.33

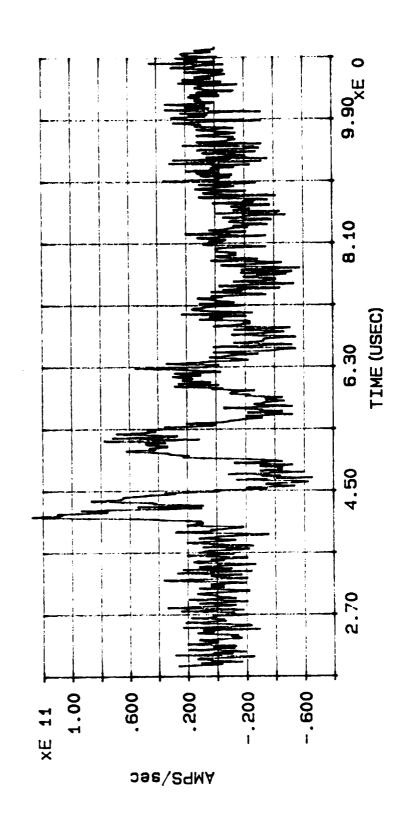
TIME

C:\CAT\DATA4\MI100.007

FILE:

MAX di/dt

1.275E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #24, ATTACH POINT #1, DISCHARGE #7

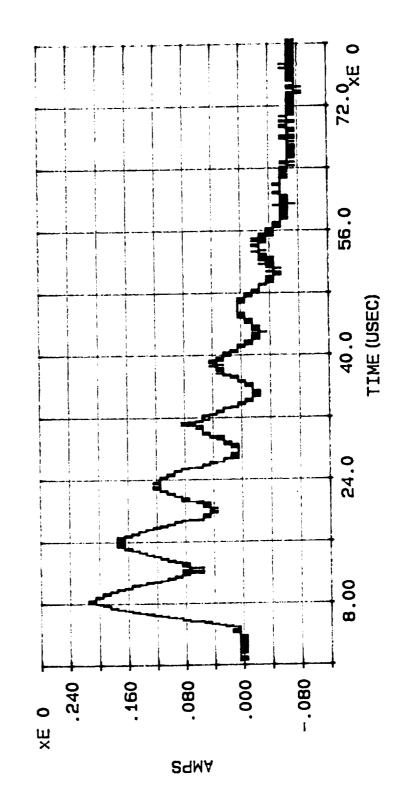
MARX MEASUREMENT: CABLE CURRENT

05/10/90 DATE:

18: 38: 58.50 TIME:

C:\CAT\DATA4\MC106.007 FILE

2.157E-1 u MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #23), PLOT #25, ATTACH POINT #1, DISCHARGE #7

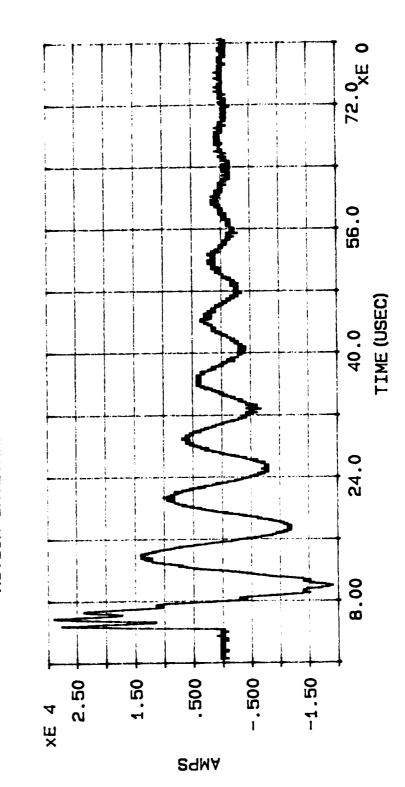
MARX MEASUREMENT: INPUT CURRENT

05/10/30	17: 03: 49.98
DAIE:	TIME:

FILE: C:\CAT\DATA4\MI100.008

MAX CURRENT = 2.904E4

ACTION INTEGRAL = 2.930E3

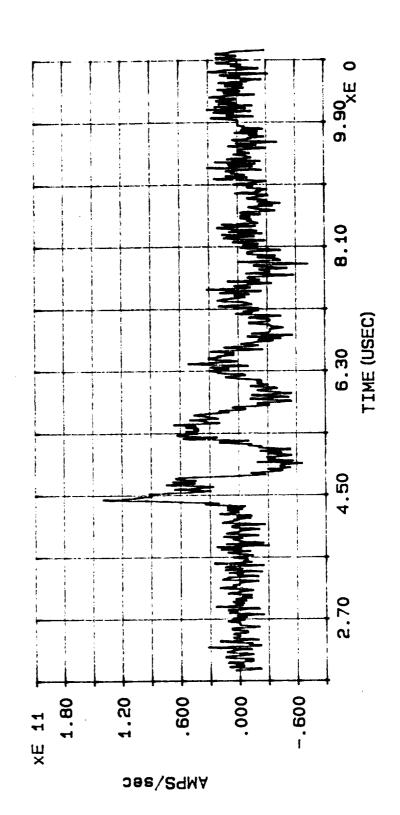


INJECTION CURRENT WAVEFORM, PLOT #26 ATTACE POINT #1, DISCHARGE #8

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DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #27, ATTACH POINT #1, DISCHARGE #8

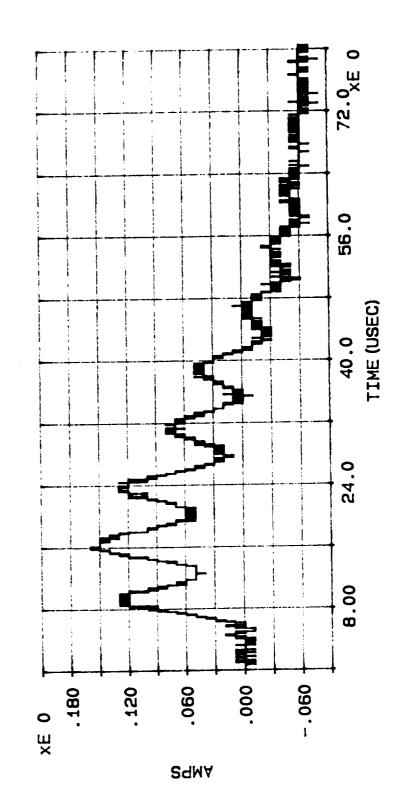
MARX MEASUREMENT: CABLE CURRENT

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TIME: 18: 43: 34.56

FILE: C:\CAT\DATA4\MC106.008

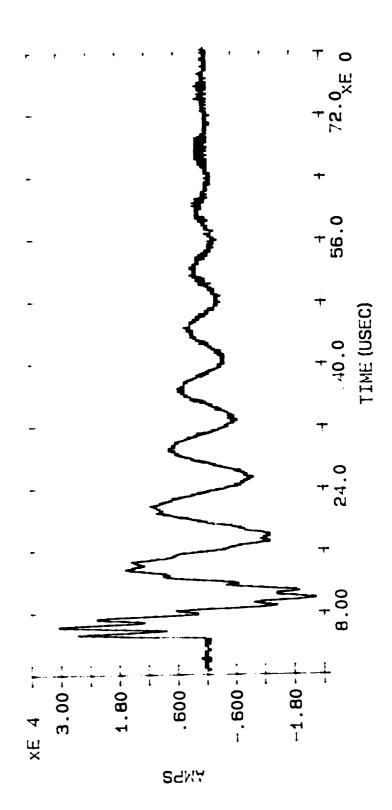
MAX CURRENT = 1.600E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #26), PLOT #28, ATTACH POINT #1, DISCHARGE #8

MARX MEASUREMENT: INPUT CURRENT

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INJECTION CURRENT WAVEFORM, PLOT #29, ATTACH POINT #1, DISCHARGE #9

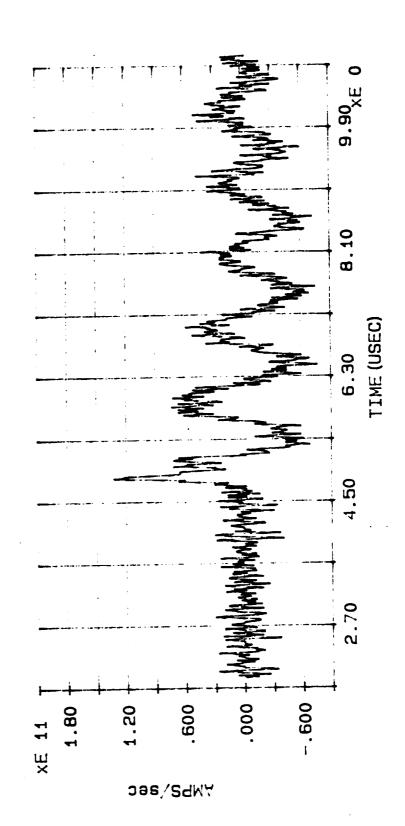
DATE: 05/11/90

TIME: 11: 48: 4

11: 48: 44.63

C:\CAT\DATA4\MI100.009

MAX di/dt = 1.330E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #30, ATTACH POINT #1, DISCHARGE #9

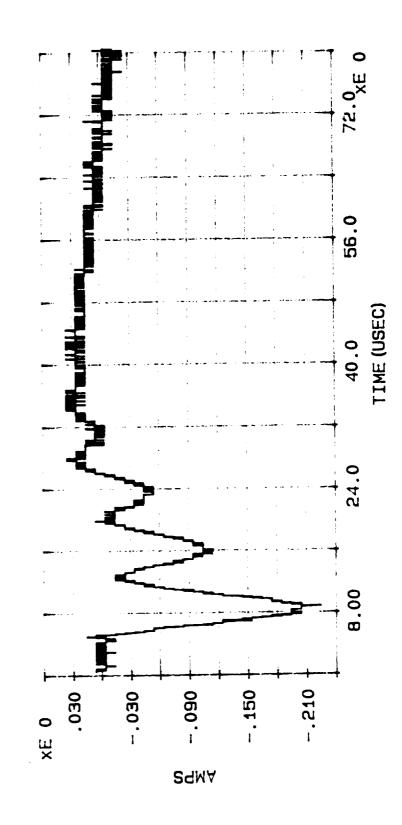
MARX MEASUREMENT: CABLE CURRENT

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TIME: 11: 52: 17.58

:ILE: C:\CAT\DATA4\MC108.009

MAX CURRENT = -2.243E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #31, ATTACH POINT #1, DISCHARGE #9

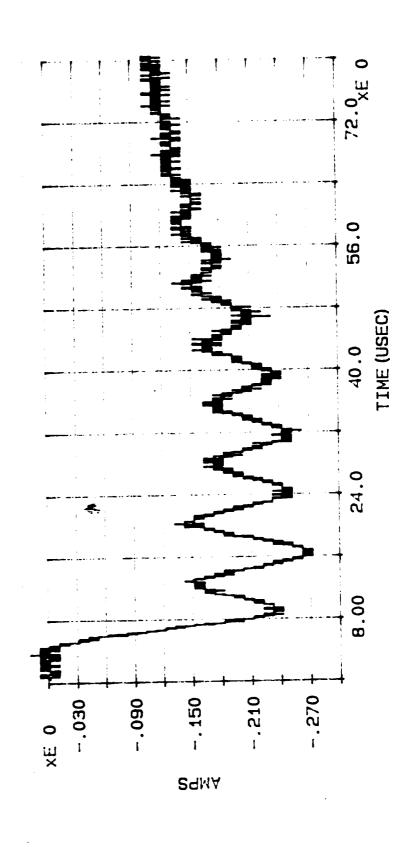
MARX MEASUREMENT: CABLE CURRENT

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TIME: 11: 57: 08.41

FILE: C:\CAT\DATA4\MC110.009

MAX CURRENT = -2.823E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #32, ATTACH POINT #1, DISCHARGE #9

MARX MEASUREMENT: CABLE CURRENT

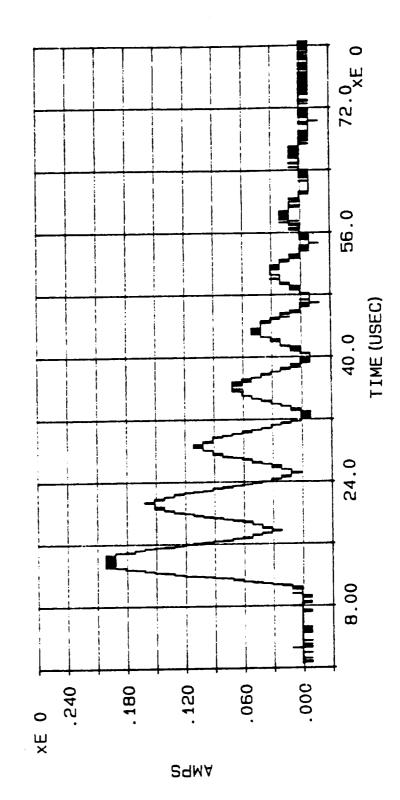
DATE: 05/16/90

TIME: 10: 19: 46

10: 19: 46.53 C:\CAT\DATA4\MC106.009

FILE:

MAX CURRENT = 2.020E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #33, ATTACH POINT #1, DISCHARGE #9

MARX MEASUREMENT: CABLE CURRENT

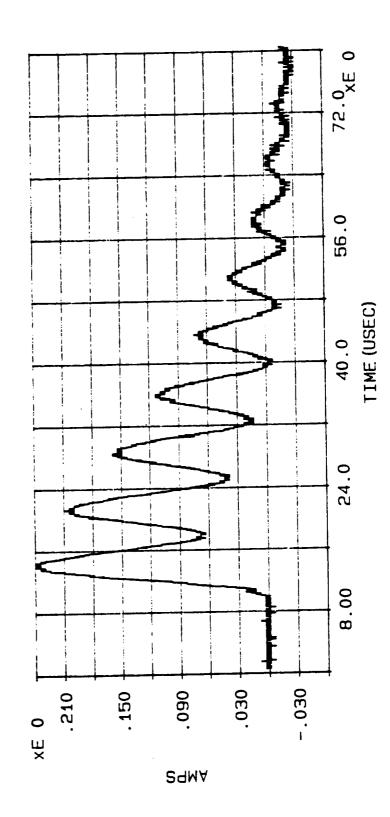
DATE: 05/16/90

TIME: 10: 24: 37.47

FILE: C:\CAT\DATA4`

C:\CAT\DATA4\MC112.009

MAX CURRENT = 2.445E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #34, ATTACH POINT #1, DISCHARGE #9

MARX MEASUREMENT: INPUT CURRENT

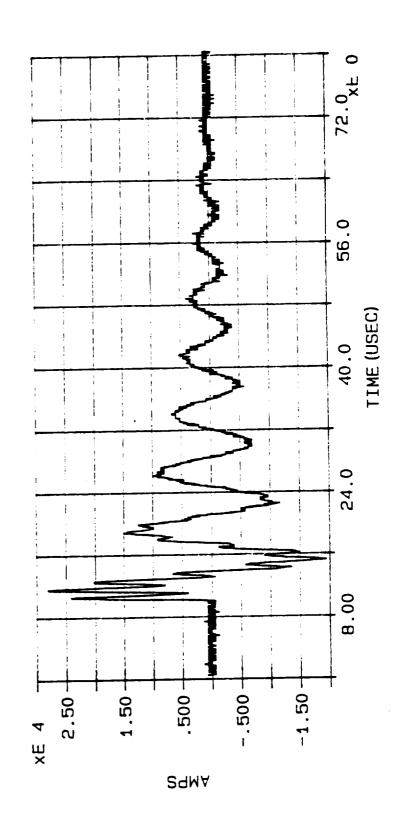
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TIME:

18: 56: 08.41 FILE:

C:\CAT\DATA4\MI100.010

2.172E3 2.871E4 11 ACTION INTEGRAL MAX CURRENT =



INJECTION CURRENT WAVEFORM, PLOT #35. ATTACE POINT #1, DISCHARGE #10

05/16/90 DATE:

TIME:

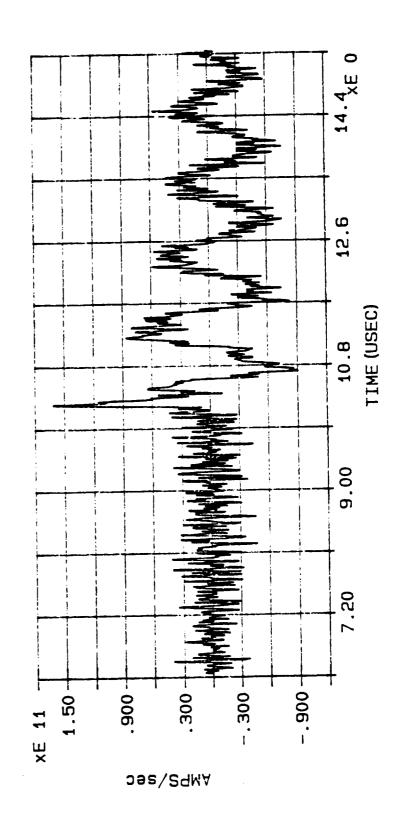
20: 44: 07.75

C:\CAT\DATA4\MI100.010

FILE:

MAX di/dt

1.617E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #36, ATTACH POINT #1, DISCHARGE #10

MARX MEASUREMENT: CABLE CURRENT

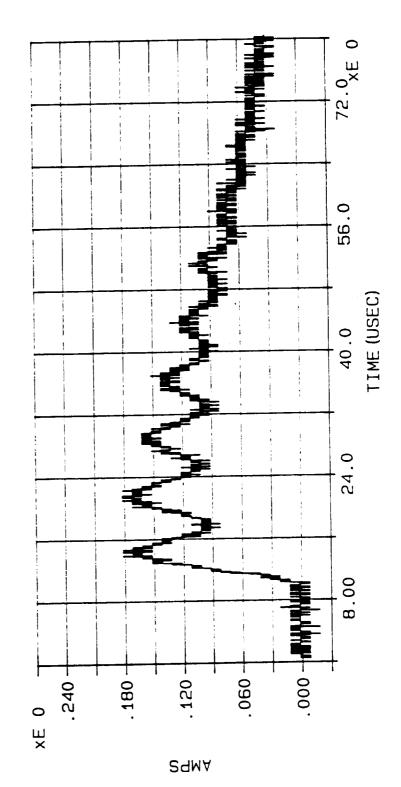
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TIME:

16: 17: 31.36

C:\CAT\DATA4\MC107.010 FILE:

1.824E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #35), PLOT #37, ATTACH POINT #1, DISCHARGE #10

MARX MEASUREMENT: CABLE CURRENT

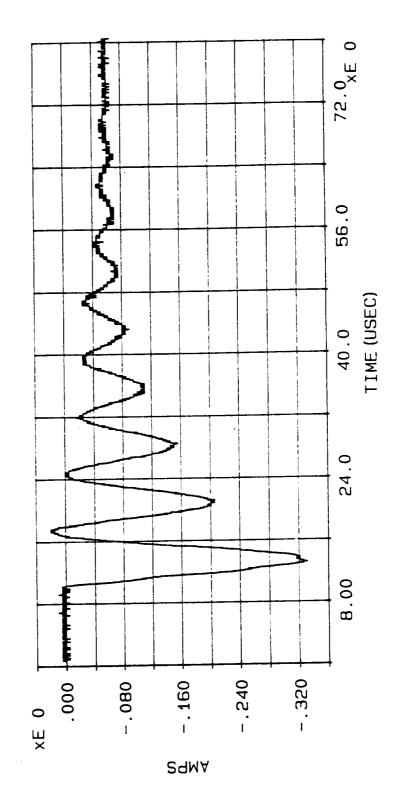
05/17/90 DATE:

TIME:

16: 21: 51.32

C:\CAT\DATA4\MC111.010 FILE:

-3.314E-1 li MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #35), PLOT #38, ATTACH POINT #1, DISCHARGE #10

MARX MEASUREMENT: INPUT CURRENT

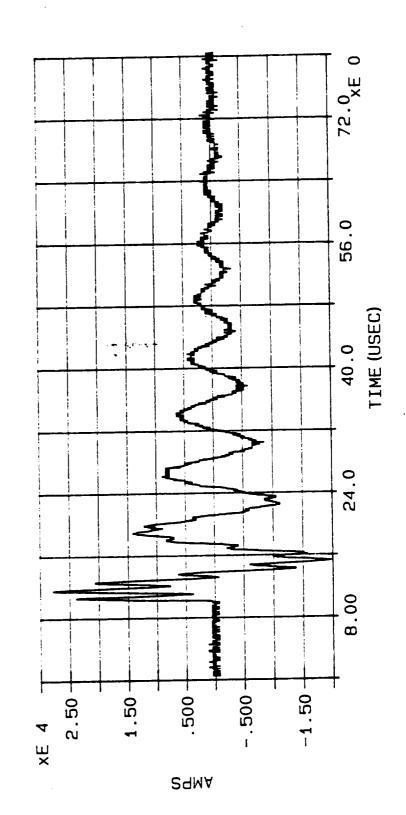
DATE: 05/16/90

TIME: 19: 03: 58

: 19: 03: 58.96

FILE: C:\CAT\DATA4\MI100.011

MAX CURRENT = 2.783E4
ACTION INTEGRAL = 2.15/1E3

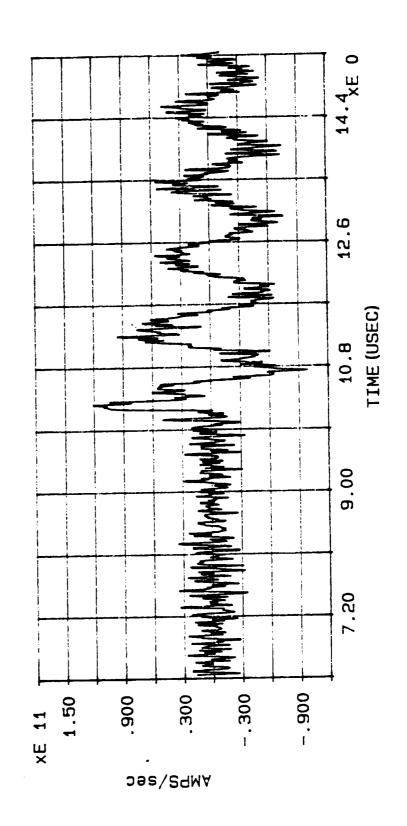


INJECTION CURRENT WAVEFORM, PLOT #39, ATTACH POINT #1, DISCHARGE #11

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MAX di/dt = 1.213E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #40, ATTACH POINT #1, DISCHARGE #11

MARX MEASUREMENT: CABLE CURRENT

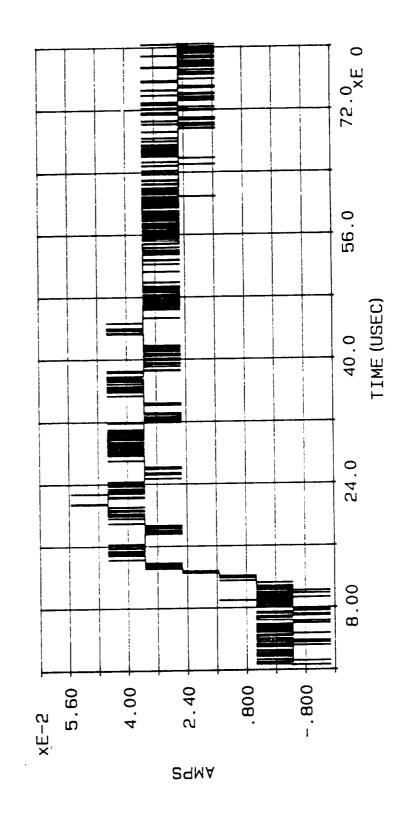
DATE: 05/17/90

TIME: 16: 26: 28.91

C:\CAT\DATA4\MC108.011

FILE:

MAX CURRENT = 5.546E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #39), PLOT #41, ATTACH POINT #1, DISCHARGE #11

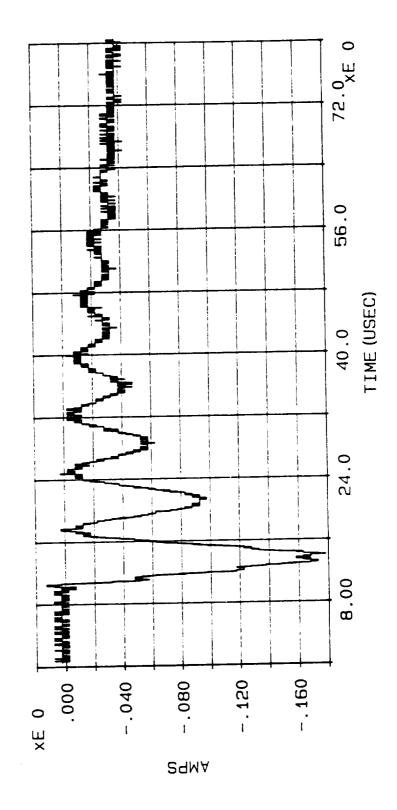
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

TIME: 16: 30: 32.78

FILE: C:\CAT\DATA4\MC110.011

MAX CURRENT = -1.781E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #39). PLOT #42, ATTACE POINT #1, DISCHARGE #11

MARX MEASUREMENT: INPUT CURRENT

DATE:

05/16/90

TIME:

19: 08: 36.55

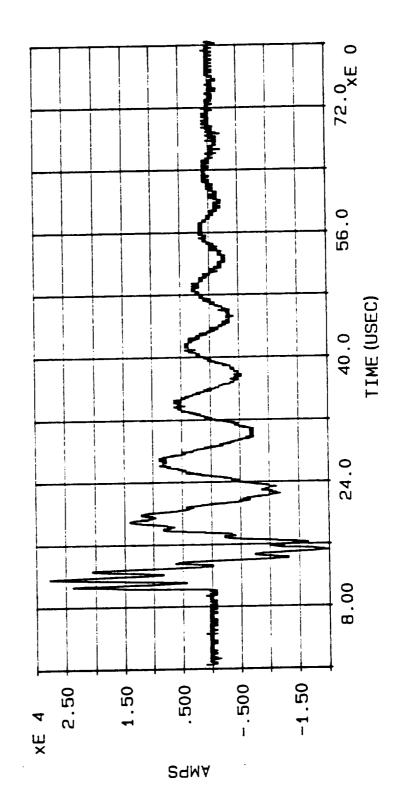
C:\CAT\DATA4\MI100.012

MAX CURRENT = FILE:

2.178E3 2.776E4

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ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #43, ATTACH POINT #1, DISCHARGE #12

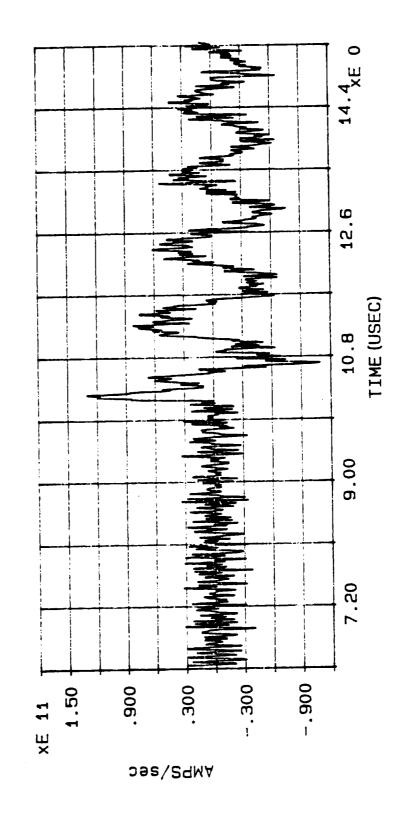
DATE: 05/16/90

TIME: 20: 51: 00.

: 20: 51: 00.90

FILE: C:\CAT\DATA4\M1100.012

MAX di/dt = 1.307E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #44, ATTACH POINT #1. DISCHARGE #12

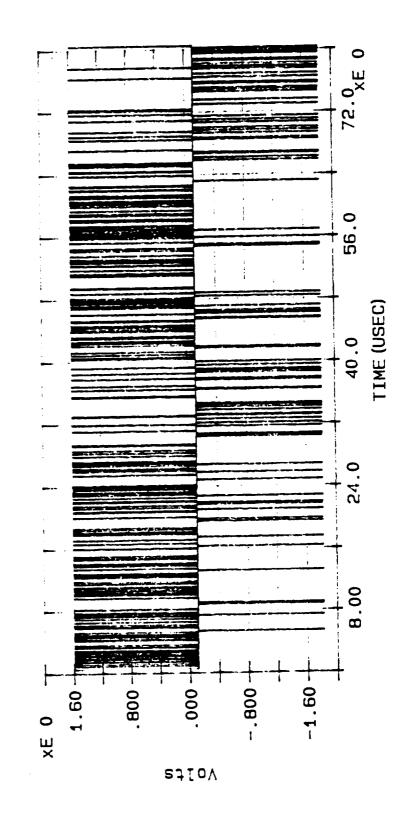
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 15: 22: 49.95

FILE: C:\CAT\DATA4\MV108.012

MAX VOLTAGE = -3.530E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLCT #43), PLOT #45, ATTACH POINT #1, DISCHARGE #12

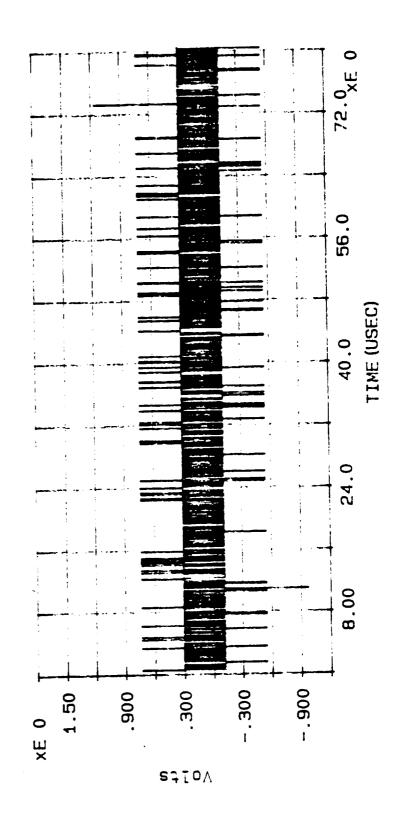
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 15: 27: 28.03

FILE: C:\CAT\DATA4\M1110.012

MAX VOLTAGE = 1.167E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #43), PLOT #46, ATTACH POINT #1, DISCHARGE #12

MARX MEASUREMENT: INPUT CURRENT

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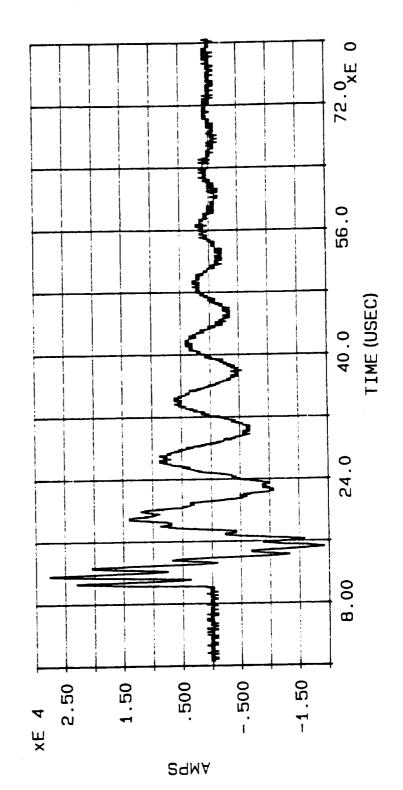
TIME:

19: 13: 31.88

C:\CAT\DATA4\M1100.013

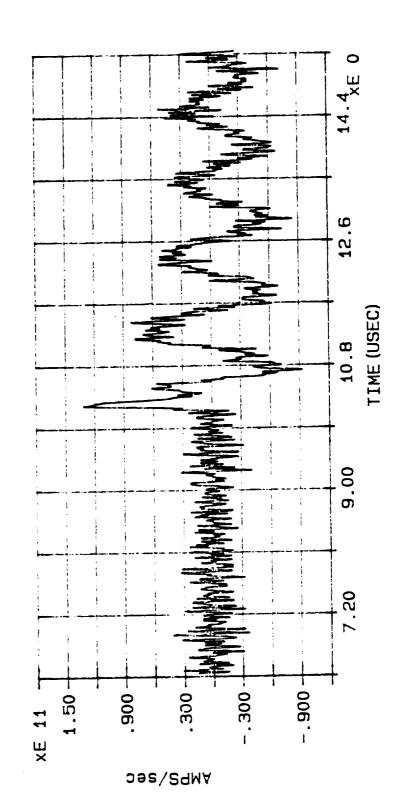
FILE:

2.765E4 MAX CURRENT 2.066E3 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #47, ATTACH POINT #1, DISCHARGE #13

05/11/30



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #48, ATTACH POINT #1, DISCHARGE #13

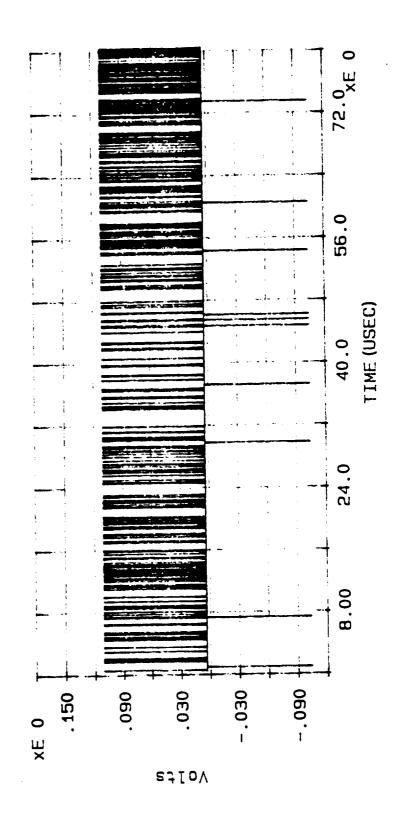
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 15: 31: 58.76

FILE: C:\CAT\DATA4\MV108.013

MAX VOLTAGE = 1.114E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #47), PLOT #49, ATTACH POINT #1, DISCHARGE #13

MARX MEASUREMENT: CABLE OC VOLTAGE

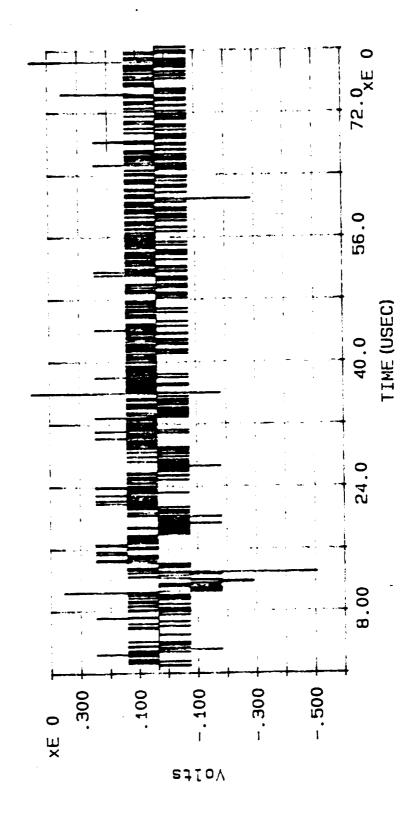
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TIME: 15: 36: 24.77

C:\CAT\DATA4\MV110.013

FILE:

MAX VOLTAGE = -6.136E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #47), PLOT #50, ATTACH POINT #1, DISCHARGE #13

MARX MEASUREMENT: INPUT CURRENT

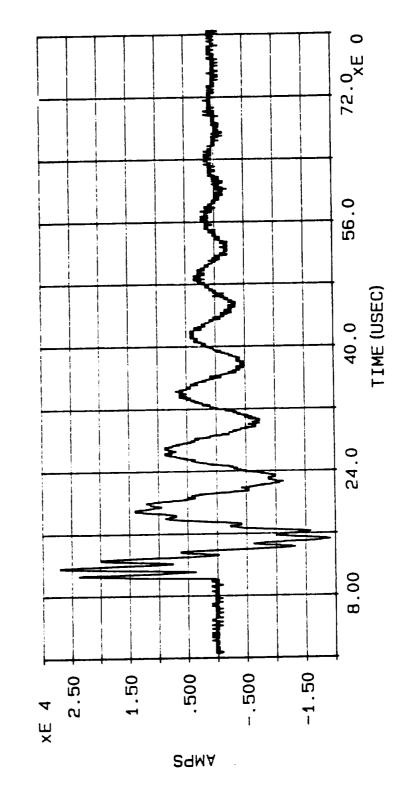
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DATE:

TIME:

19: 17: 56.62

C:\CAT\DATA4\MI100.014 FILE:

2.062E3 2.837E4 ll ACTION INTEGRAL MAX CURRENT ==



INJECTION CURRENT WAVEFORM, PLOT #51, ATTACH POINT #1, DISCHARGE #14

05/11/90

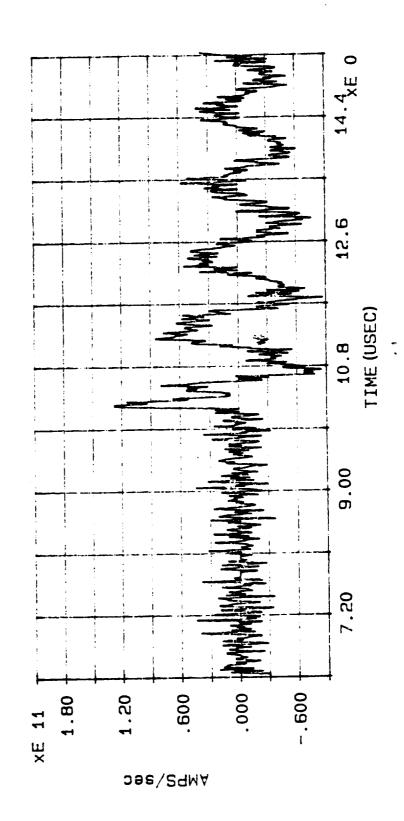
DATE: TIME:

06: 51: 47.29

C:\CAT\DATA4\MI100.014

MAX d1/dt

1.278E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #52, ATTACH POINT #1, DISCHARGE #14

MARX MEASUREMENT: CABLE OC VOLTAGE

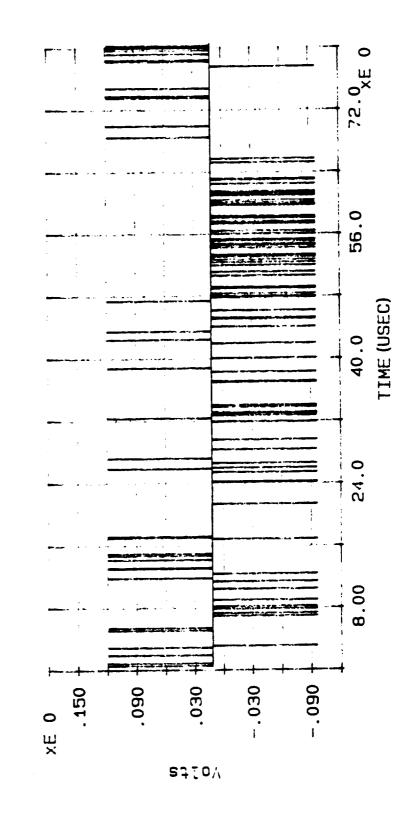
DATE: 05/17/90

TIME: 15: 40: 30.67

FILE: C:\CAT\DATA4\MV107.014

1.193E-1

MAX VOLTAGE =



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #51), PLOT #53, ATTACH POINT #1, DISCHARGE #14

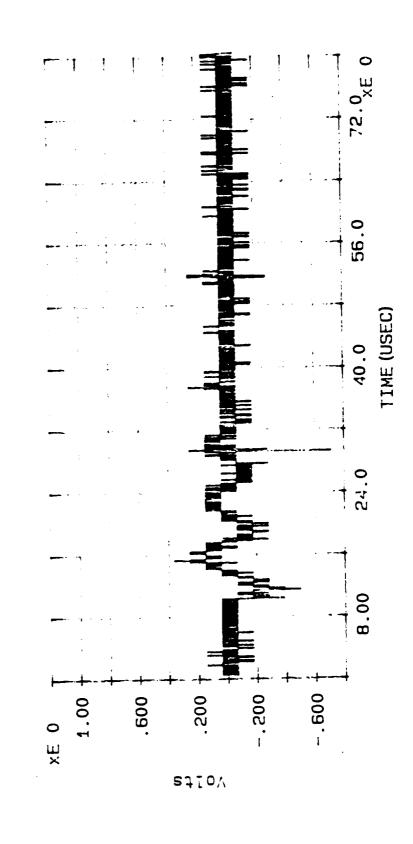
MARX MEASUREMENT: CABLE OC VOLTAGE

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DATE: 05, 17, 30 TIME: 15: 44; 26.46

FILE: C:\CAT\DATA4\MV111.014

MAX VOLTAGE = -7.142E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #51), PLOT #54, ATTACH POINT #1, DISCHARGE #14

MARX MEASUREMENT: INPUT CURRENT

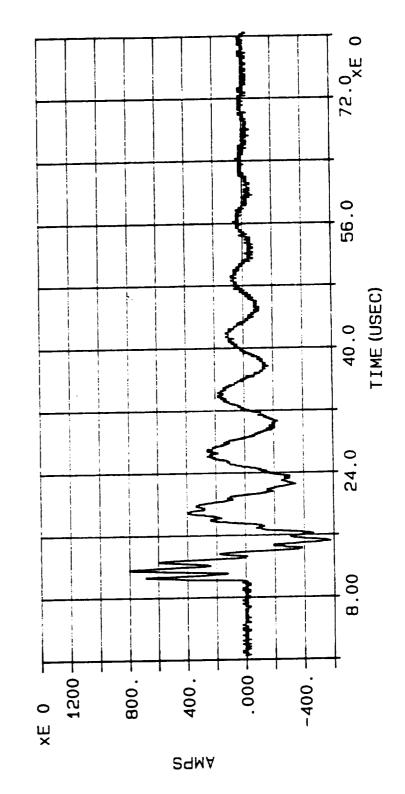
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TIME: 19: 24: 35.82

FILE: C:\CAT\DATA4\MI100.015

MAX CURRENT = 8.256E2

ACTION INTEGRAL = 1.781E0



INJECTION CURRENT WAVEFORM, PLOT #55, ATTACH POINT #1, DISCHARGE #15

05/11/80

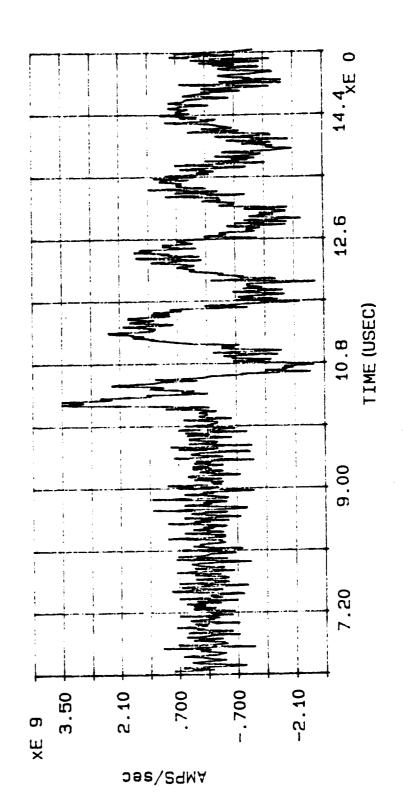
DATE:

TIME: 06: 55: 05.25

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FILE: C:\CAT\DATA4\MI100.015

MAX di/dt = 3.515E9



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #56, ATTACH POINT #1, DISCHARGE #15

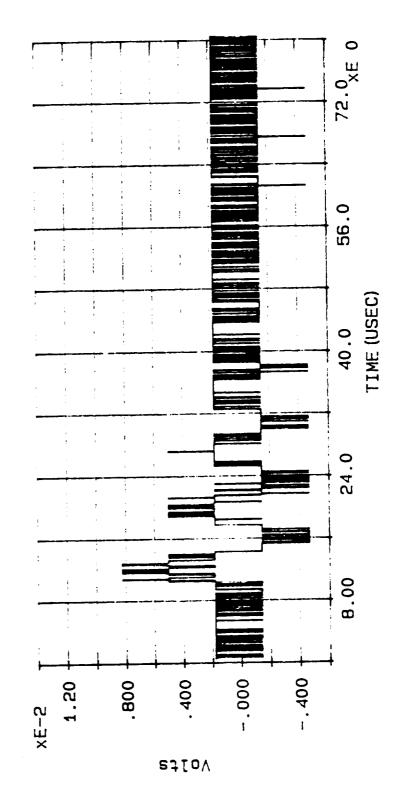
MARX MEASUREMENT: CABLE OC VOLTAGE

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TIME: 09: 09: 37.04

FILE: C:\CAT\DATA4\MV106.015

MAX VOLTAGE = 8.277E-3



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #06 BY INJECTION CURRENT WAVEFORM (PLOT #55), PLOT #57, ATTACE POINT #1, DISCHARGE #15

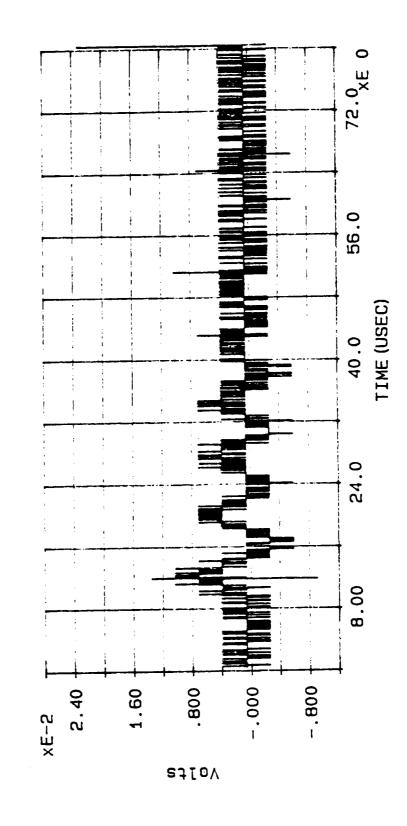
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 09: 13: 39.15

FILE: C:\CAT\DATA4\MV112.015

MAX VOLTAGE = 2.975E-2



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #55), PLOT #57, ATTACE POINT #1, DISCHARGE #15

MARX MEASUREMENT: INPUT CURRENT

DATE: 05/16/90

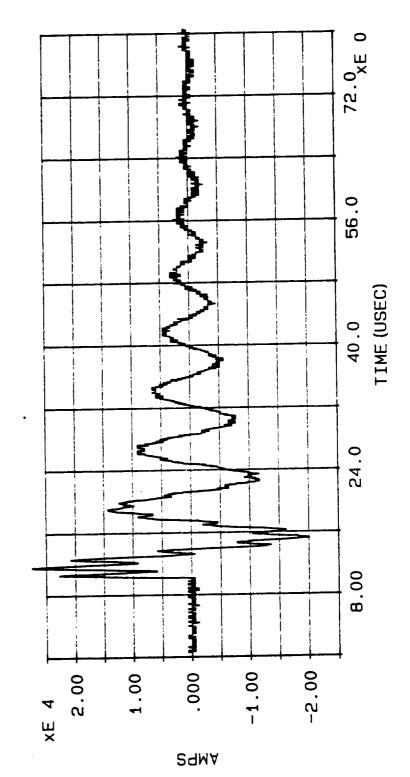
TIME: 19: 28: 50.35

FILE: C:\CAT\DATA4\MI300.016

2.734E4

MAX CURRENT =

ACTION INTEGRAL = 2.278E3



INJECTION CURRENT WAVEFORM, PLOT #59, ATTACH POINT #3, DISCHARGE #16

05/11/90

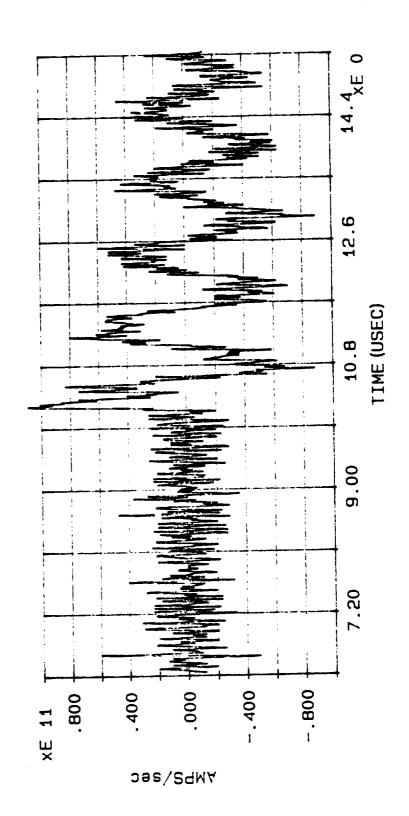
DATE: TIME:

06: 58: 12.71

C:\CAT\DATA4\M1300.016 FILE:

MAX di/dt

1.091E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #60, ATTACH POINT #3, DISCHARGE #16

MARX MEASUREMENT: CABLE CURRENT

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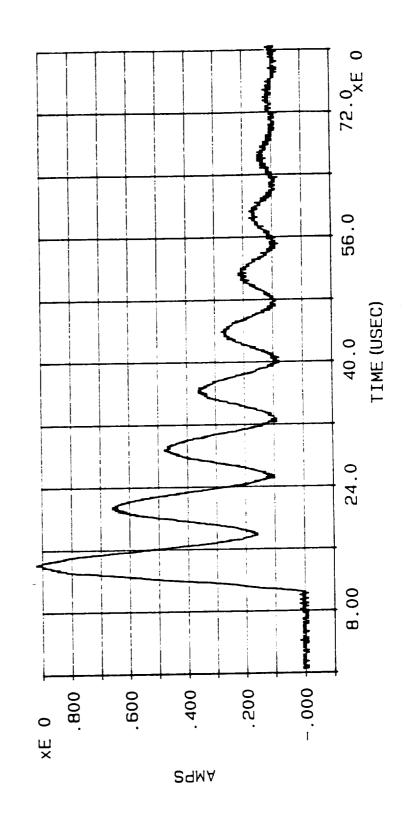
16: 37: 15.88

MC30616

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FILE:

9.209E-1 11 MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #59), PLOT #61, ATTACH POINT #3, DISCHARGE #16

MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

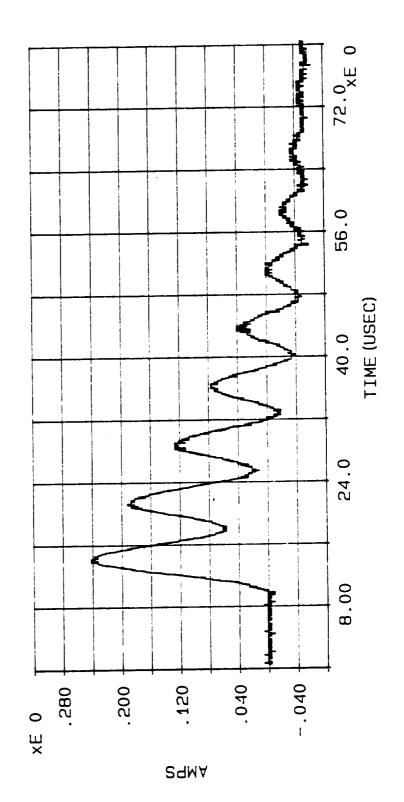
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TIME: 16: 41: 22.28

C:\CAT\DATA4\MC312.016

FILE:

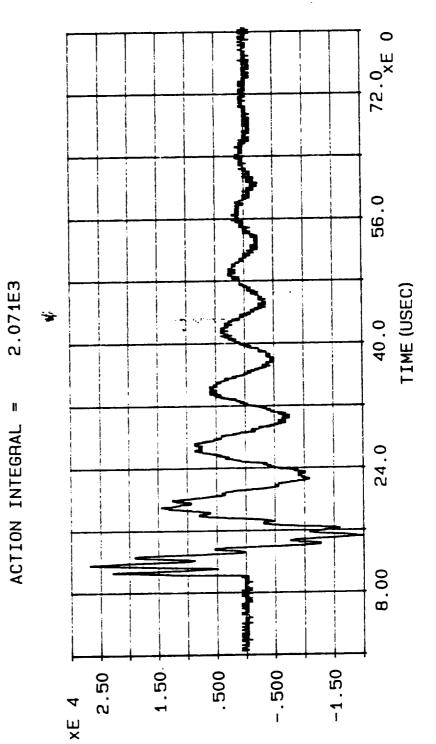
MAX CURRENT = 2.478E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #59), PLOT #62, ATTACH POINT #3, DISCHARGE #16

MARX MEASUREMENT: INPUT CURRENT

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INJECTION CURRENT WAVEFORM, PLOT #63, ATTACH POINT #3, DISCHARGE #17

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DATE: TIME:

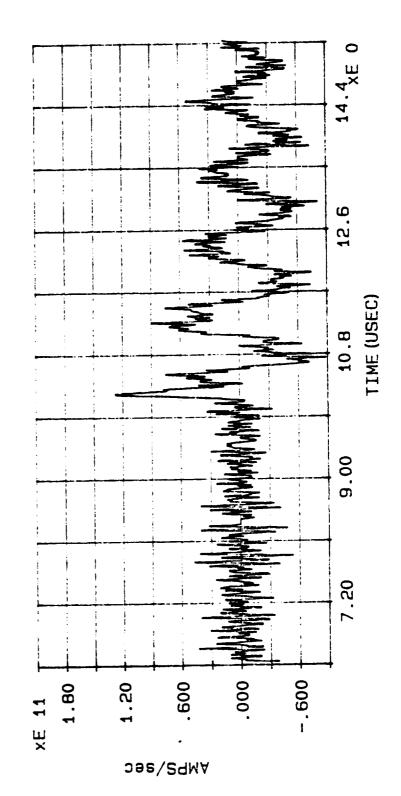
07: 01: 24.34

C:\CAT\DATA4\MI300.017

FILE:

MAX di/dt

1.278E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #64, ATTACH POINT #3, DISCHARGE #17

MARX MEASUREMENT: CABLE CURRENT

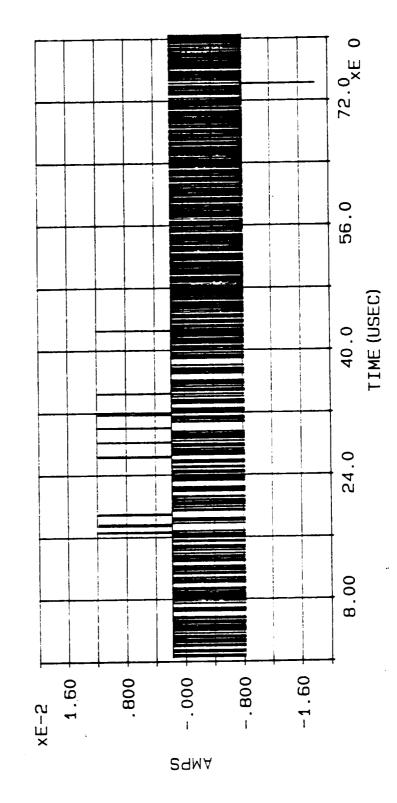
DATE: 05/17/90

TIME: 16: 48: 00.43

C:\CAT\DATA4\MC307.017

FILE:

MAX CURRENT = -1.824E-2



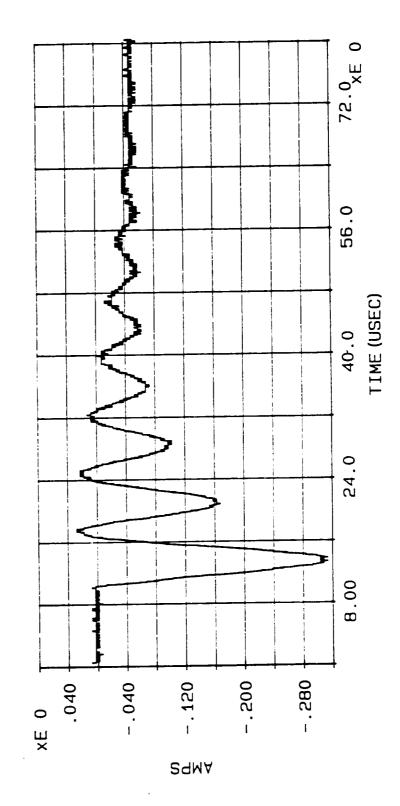
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #63), PLOT #65, ATTACH POINT #3, DISCHARGE #17

MARX MEASUREMENT: CABLE CURRENT

TIME: 16: 52: 42.15

FILE: C:\CAT\DATA4\MC311.017

MAX CURRENT = -3.133E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #63), PLOT #66, ATTACH POINT #3, DISCHARGE #17

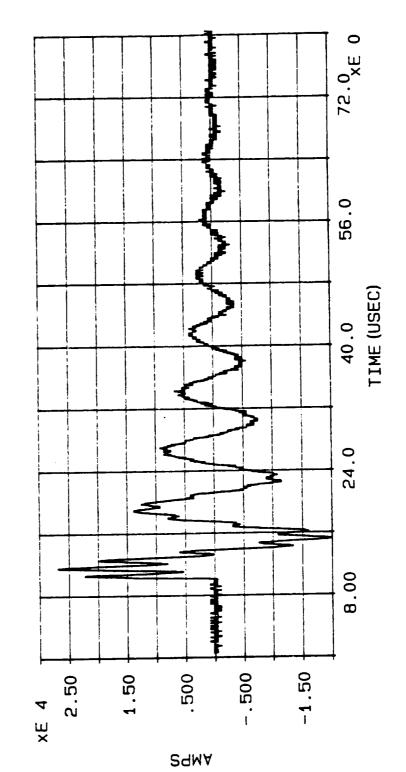
MARX MEASUREMENT: INPUT CURRENT

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TIME: 19: 37: 35.82

FILE: C:\CAT\DATA4\MI300.018
MAX CURRENT = 2.752E4

ACTION INTEGRAL = 2.135E3



INJECTION CURRENT WAVEFORM, PLOT #67, ATTACH POINT #3, DISCHARGE #18

MARX di/dt

DATE:

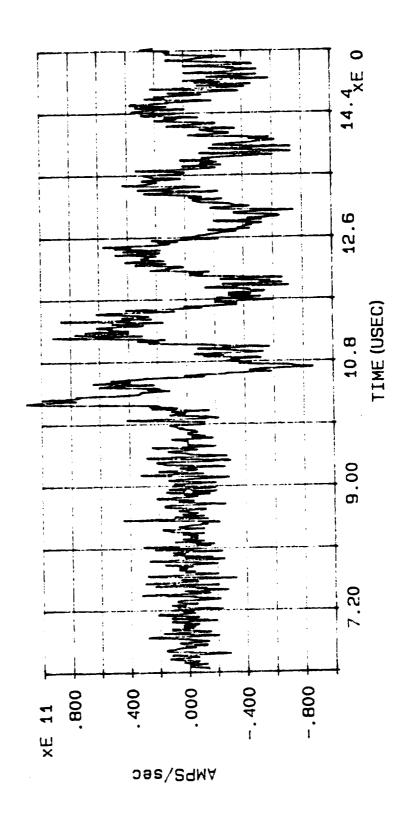
TIME:

07:04:39.99

C:\CAT\DATA4\MI300.018

MAX di/dt

1.104E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #68, ATTACH POINT #3, DISCHARGE #18

MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

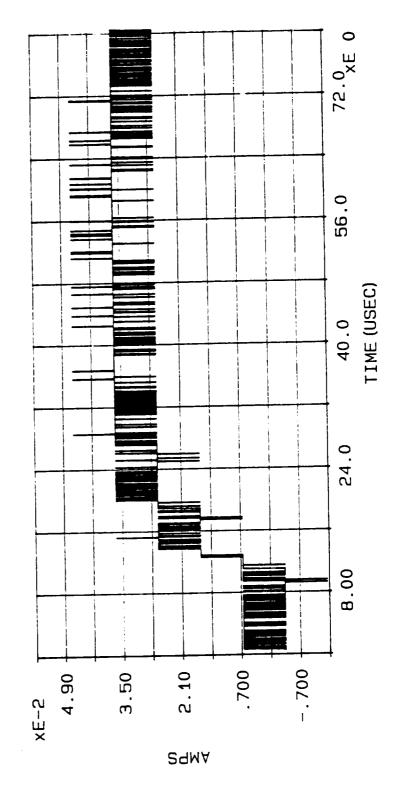
TIME: 16: 58: 21

16: 58: 21.91

C:\CAT\DATA4\MC308.018

FILE:

MAX CURRENT = 4.664E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #67), PLOT #69, ATTACH POINT #3, DISCHARGE #18

MARX MEASUREMENT: CABLE CURRENT

05/17/90 DATE:

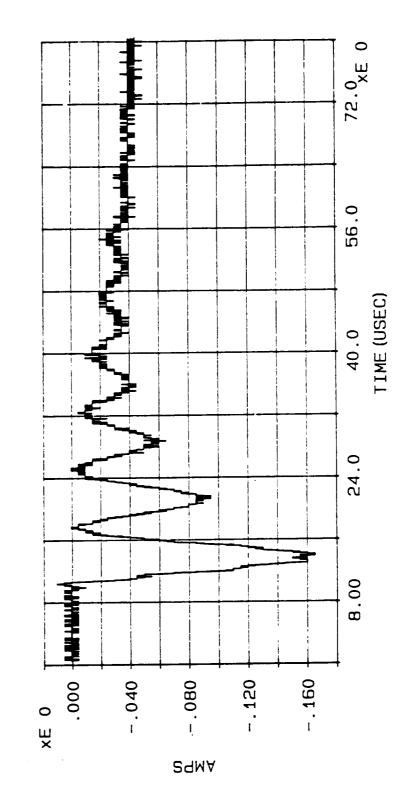
TIME:

17: 02: 24.85

C:\CAT\DATA4\MC310.018

FILE:

-1.651E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #67), PLOT #70, ATTACH POINT #3, DISCHARGE #18

MARX MEASUREMENT: INPUT CURRENT

05/16/90 DATE:

19: 41: 59.79

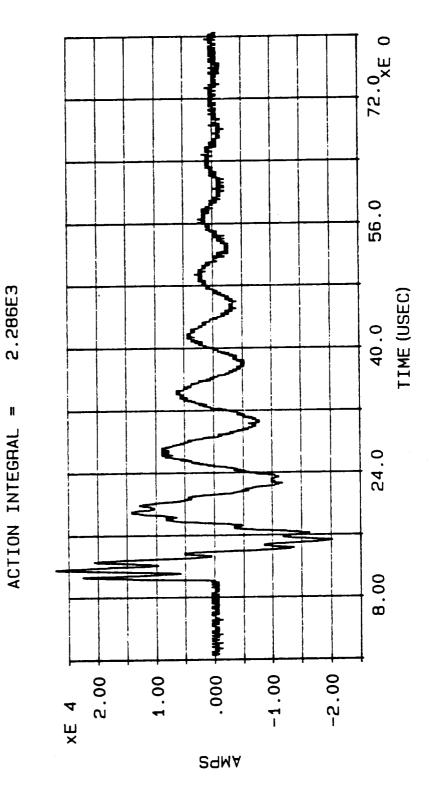
FILE: TIME:

C:\CAT\DATA4\MI300.019

MAX CURRENT =

2.788E4

2.286E3



INJECTION CURRENT WAVEFORM, PLOT #71, ATTACH POINT #3, DISCHARGE #19

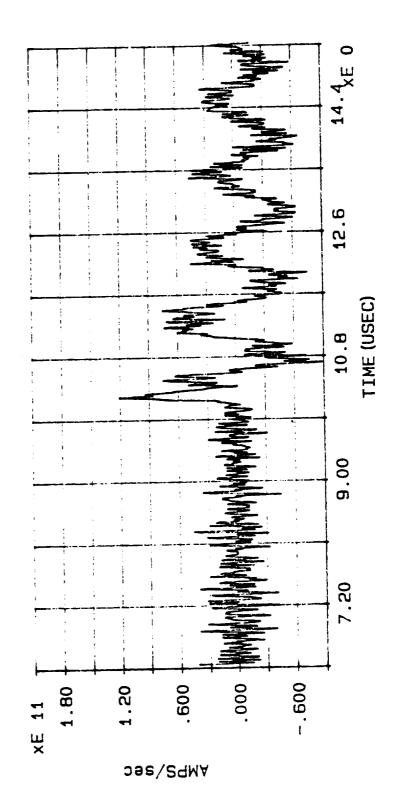
MARX di/dt

DATE: 05/17/90

TIME: 07: 08: 01.01

FILE: C:\CAT\DATA4\MI300.019

MAX di/dt = 1.213E11



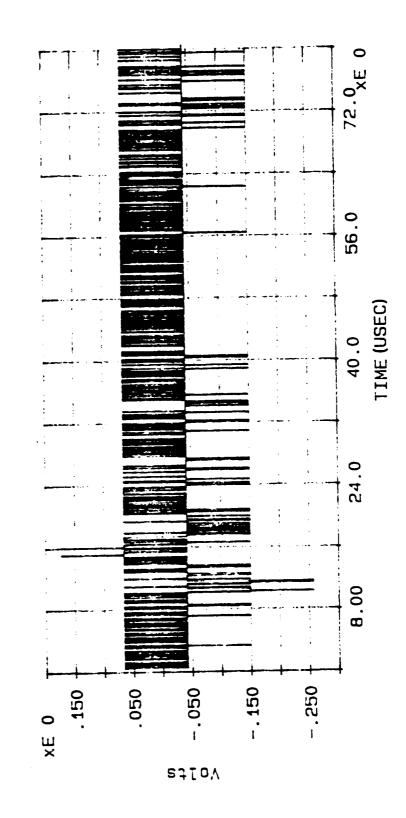
DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #72, ATTACH POINT #3, DISCHARGE #19

MARX MEASUREMENT: CABLE OC VOLTAGE

TIME: 09: 29: 11.95

FILE: C:\CAT\DATA4\MV308.019

MAX VOLTAGE = -2.572E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #71), PLOT #73, ATTACH POINT #3, DISCHARGE #19

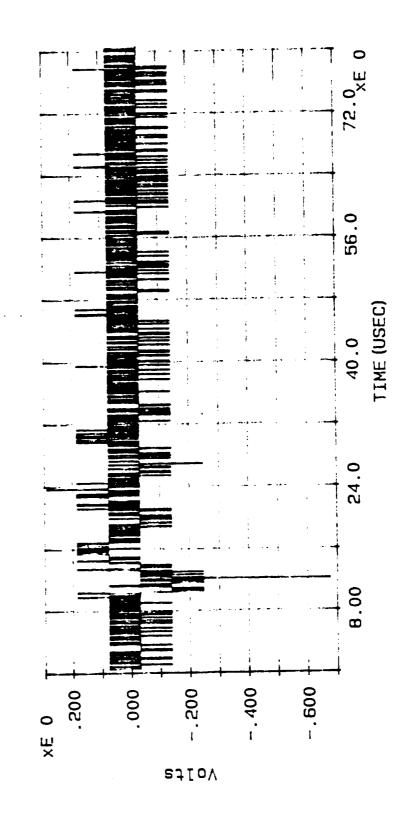
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 09: 34: 01.96

FILE: C:\CAT\DATA4\MV310.019

MAX VOLTAGE = -1.216E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #71), PLOT #74, ATTACH POINT #3, DISCHARGE #19

MARX MEASUREMENT: INPUT CURRENT

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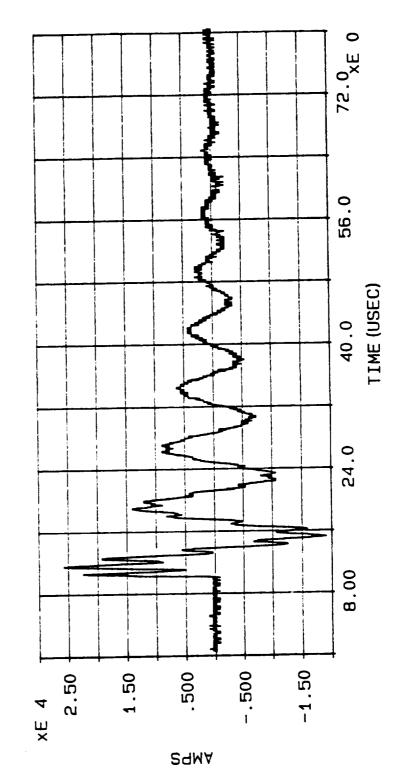
19: 46: 21.84 TIME:

FILE:

C:\CAT\DATA4\MI300.020

2.645E4 MAX CURRENT = 2.029E3

ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #75, ATTACH POINT #3, DISCHARGE #20

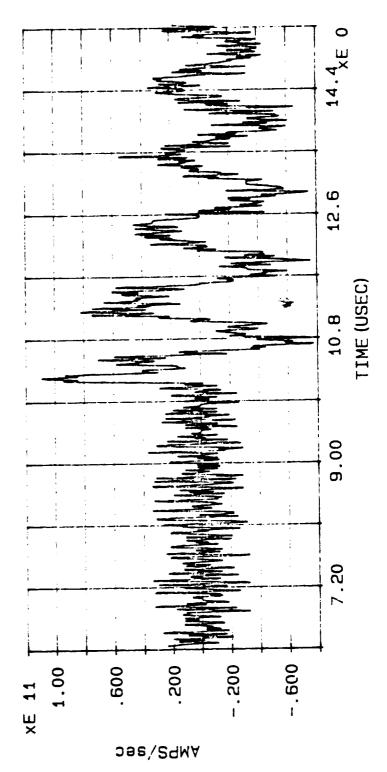
MARX di/dt

05/11/30 DATE:

07: 11: 20.28 TIME:

C:\CAT\DATA4\MI30C.C2C

1.091E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM PLOT #76, ATTACH POINT #3, DISCHARGE #20

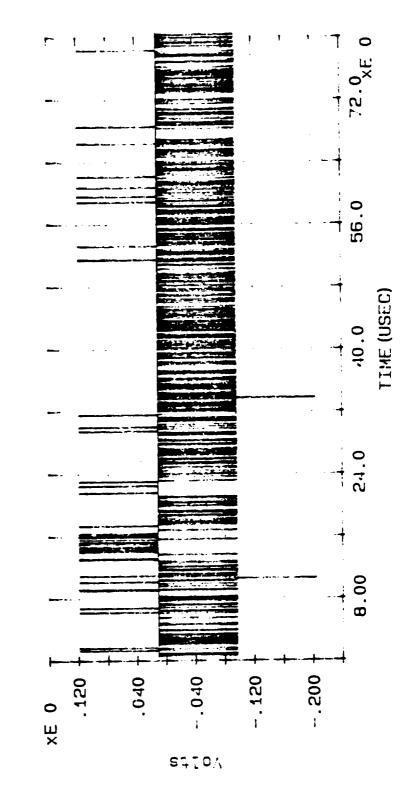
MARX MEASUREMENT: CABLE OC VOLTAGE

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TIME: 16: 02: 12.35

FILE: C:\CAT\DATA4\MV307.020

MAX VOLTAGE = -2.048E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #75), PLOT #77, ATTACH POINT #3, DISCHARGE #20.

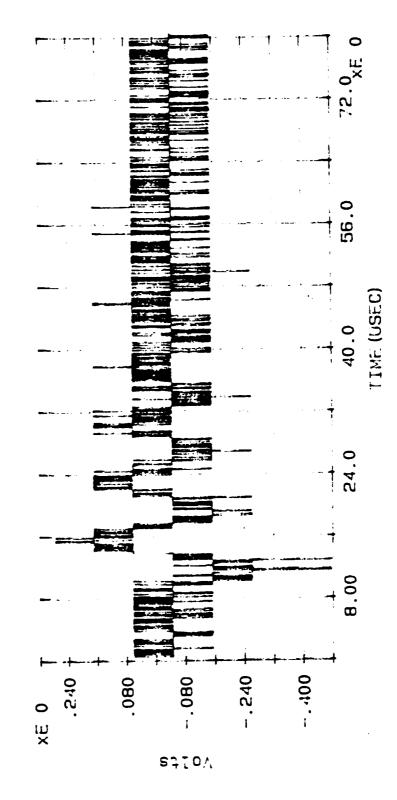
MARX MEASUREMENT: CABLE OC VOLTAGE

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TIME: 16: 06: 43.29

FILE: C:\CAT\DATA4\MV311.020

MAX VOLTAGE = -4.771E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #75), PLOT #78, ATTACH POINT #3, DISCHARGE #20

MARX MEASUREMENT: CABLE OC VOLTAGE

05/17/90 DATE:

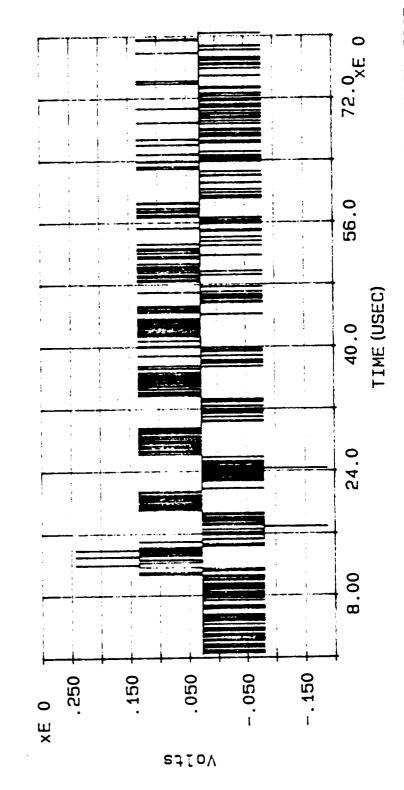
TIME:

09: 19: 01.46

C:\CAT\DATA4\MV306.021

FILE:

2.436E-1 MAX VOLTAGE =



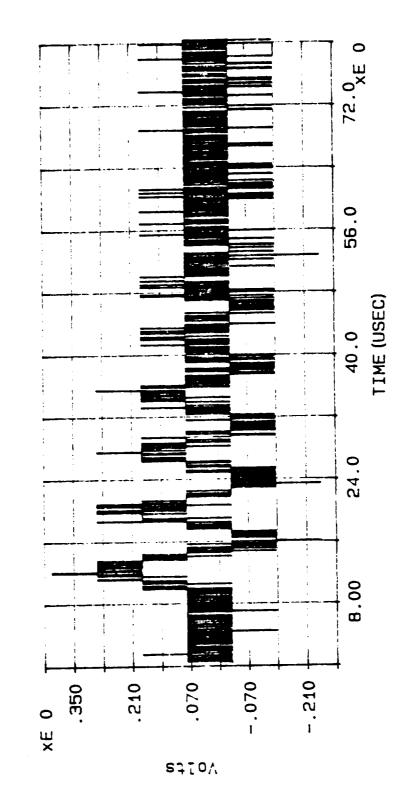
OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (NO PLOT), PLOT #79, ATTACH POINT #3, DISCHARGE #21

MARX MEASUREMENT: CABLE OC VOLTAGE

TIME: 09: 23: 58.49

FILE: C:\CAT\DATA4\MV312.021

MAX VOLTAGE = 4.024E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (NO PLOT), PLOT #80, ATTACH POINT #3, DISCHARGE #21

MARX MEASUREMENT: INPUT CURRENT

06/91	
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DATE:	

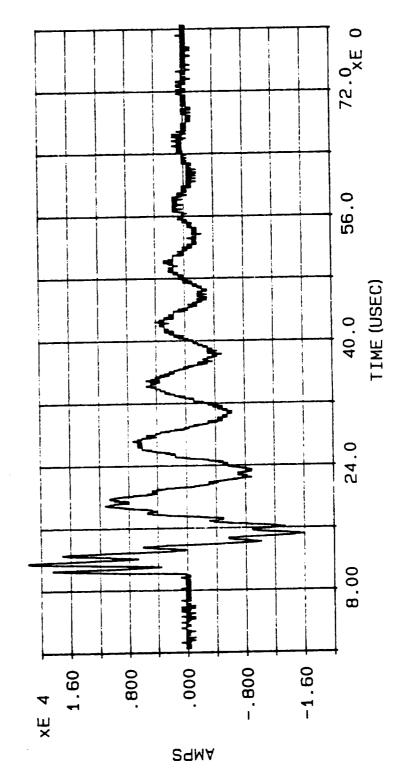
TIME:

19: 50: 47.35

C:\CAT\DATA4\MI200.022

2.236E4 MAX CURRENT = FILE:





INJECTION CURRENT WAVEFORM, PLOT #81, ATTACH POINT #2, DISCHARGE #22

MARX di/dt

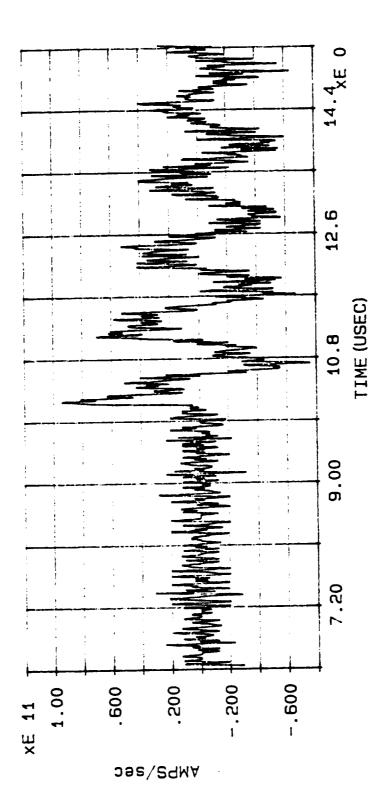
05/17/90 DATE:

07: 14: 41.26 TIME:

FILE:

C:\CAT\DATA4\M1200.022

9.424E10 MAX d1/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #82, ATTACH POINT #2, DISCHARGE #22

ATTACH POINT #2, DISCHARGE #22

MARX MEASUREMENT: CABLE OC VOLTAGE

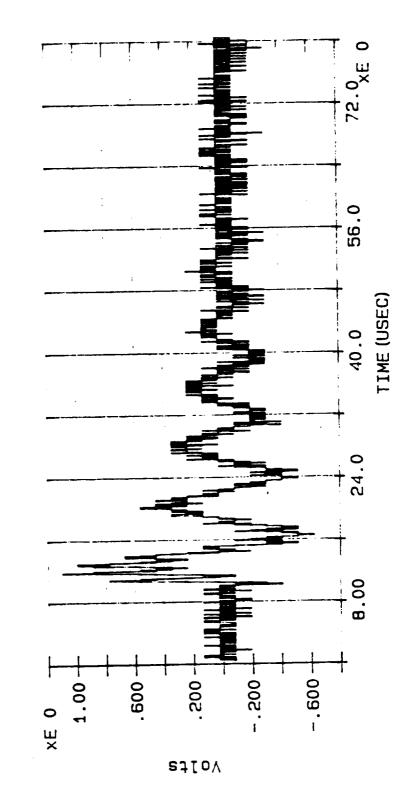
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09: 02: 59.93 TIME:

FILE:

C:\CAT\DATA4\MV206.023

1.102E0 MAX VOLTAGE



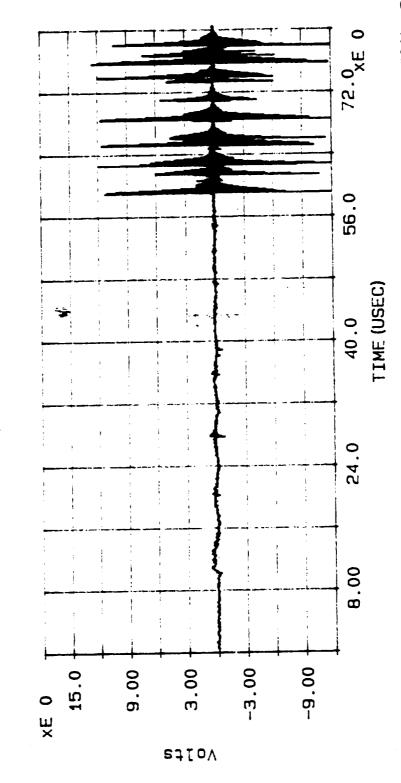
OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #84), PLOT #86, ATTACH POINT #2, DISCHARGE #23

MARX MEASUREMENT: CABLE OC VOLTAGE

TIME: 08: 52: 40.15

FILE: C:\CAT\DATA4\MV212.023

MAX VOLTAGE = 1.285E1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #84), PLOT #87, ATTACH POINT #2, DISCHARGE #22

MARX MEASUREMENT: INPUT CURRENT

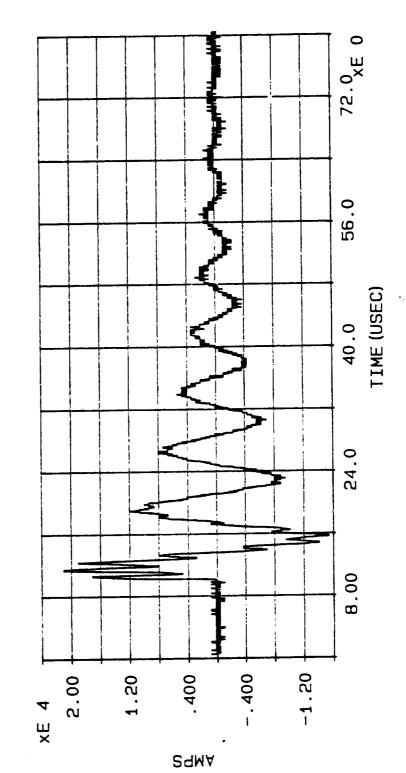
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TIME: 19: 59: 27.28

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FILE: C:\CAT\DATA4\M1400.024

MAX CURRENT = 2.169E4
ACTION INTEGRAL = 1.482E3



INJECTION CURRENT WAVEFORM, PLOT #88, ATTACH POINT #2, DISCHARGE #24

MARX d1/dt

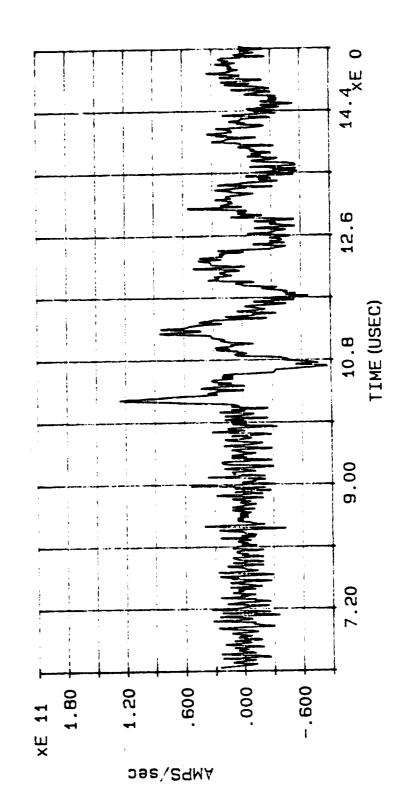
05/11/90 DATE:

07: 20: 59.14 TIME:

FILE:

C:\CAT\DATA4\MI40C.024

1.265E11 MAX d1/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #89, ATTACH POINT #4, DISCHARGE #24

MARX MEASUREMENT: CABLE CURRENT

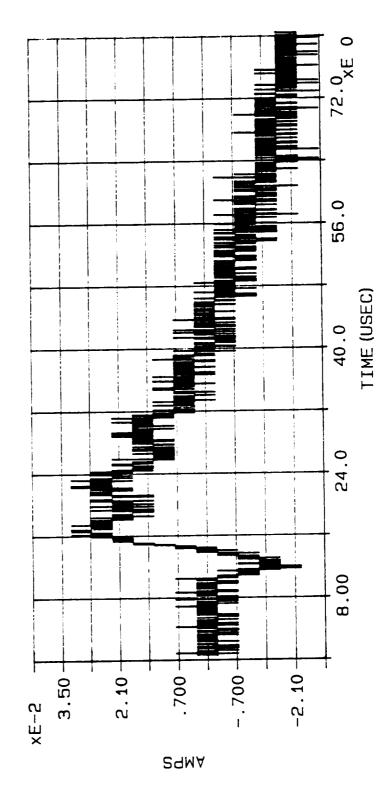
8//I/CO :

TIME: 17: 23.87

FILE: C:\CAT\D

C:\CAT\DATA4\MC406.024

MAX CURRENT = 3.781E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #88), PLOT #90, ATTACH FOINT #4, DISCHARGE #24

MARX MEASUREMENT: CABLE CURRENT

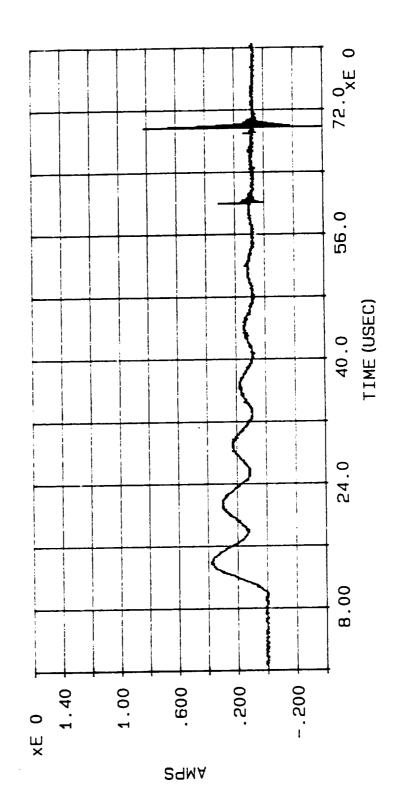
DATE: 05/17/90

TIME: 17: 22: 12.01

C:\CAT\DATA4\MC412.024

FILE:

MAX CURRENT = 1.124E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #88), PLOT #91, ATTACE POINT #4, DISCHARGE #24

MARX MEASUREMENT: INPUT CURRENT

05/16/90 DATE:

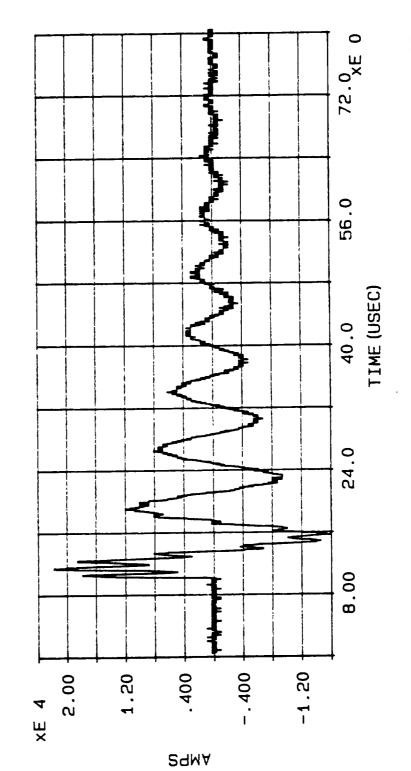
20: 03: 21.86 TIME:

C:\CAT\DATA4\MI400.025

MAX CURRENT = FILE:

2.247E4

1.574E3 ACTION INTEGRAL =



INJECTION CURRENT WAVEFORM, PLOT #92, ATTACH POINT #4, DISCHARGE #25

MARX di/dt

05/11/90 DATE:

TIME:

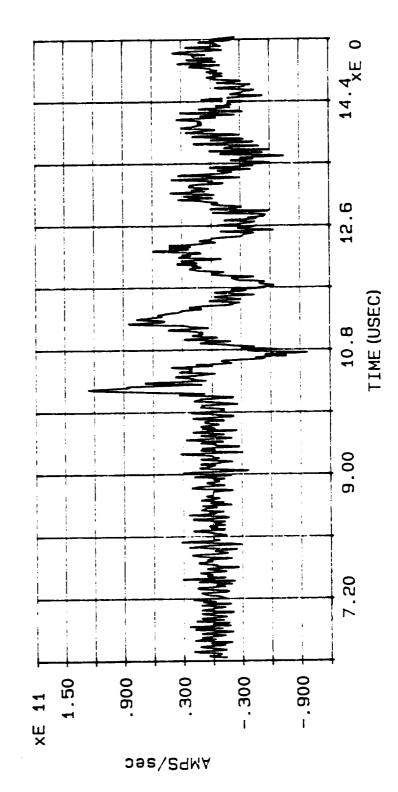
07: 24: 13.69

C:\CAT\DATA4\MI400.025

FILE:

MAX di/dt

1.265E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #93, ATTACH POINT #4, DISCHARGE #25

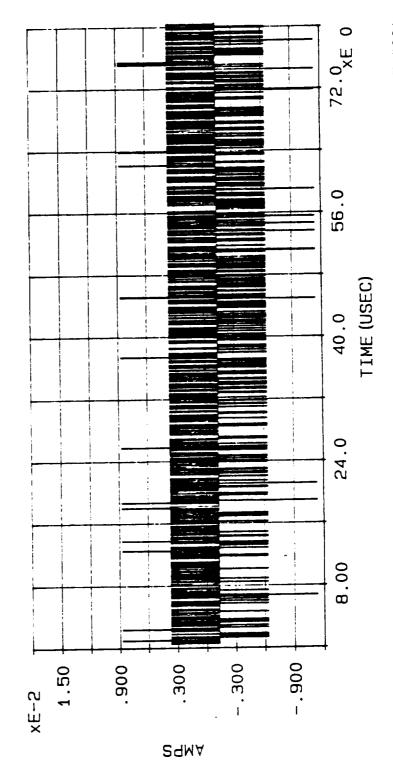
MARX MEASUREMENT; CABLE CURRENT

TIME: 17: 26: 32.47

C:\CAT\DATA4\MC407.025

FILE:

MAX CURRENT = -1.135E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #92), PLOT #94, ATTACH POINT #4, DISCHARGE #25

MARX MEASUREMENT: CABLE CURRENT

05/17/90 DATE:

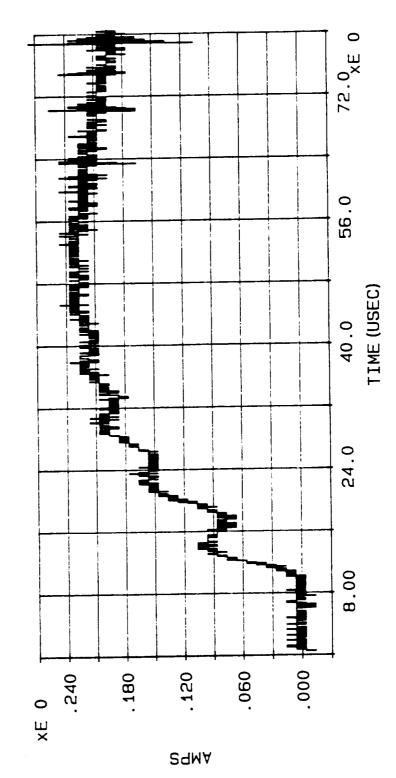
TIME:

17: 31: 15.55

C:\CAT\DATA4\MC411.025

FILE:

3.570E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #92), PLOT #95, ATTACH POINT #4, DISCHARGE #25

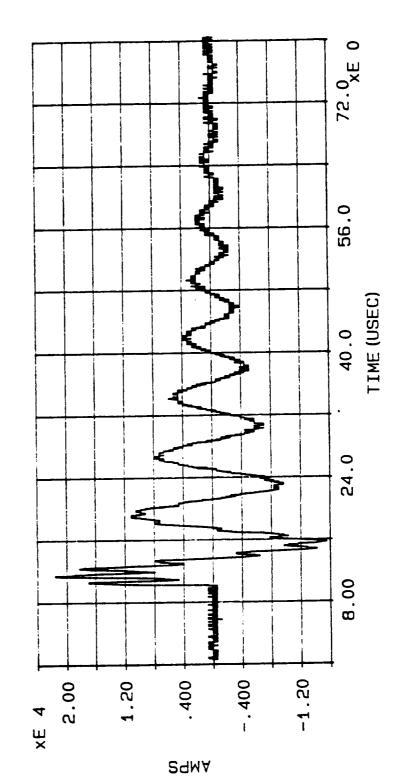
MARX MEASUREMENT: INPUT CURRENT

TIME: 20: 07: 19

E: 20: 07: 19.20 E: C:\CAT\DATA4\MI406.026

FILE: C:\CAT\DATA4\MI4
MAX CURRENT = 2.155E4

ACTION INTEGRAL = 1.570E3



INJECTION CURRENT WAVEFORM, PLOT #96, ATTACH POINT #4, DISCHARGE #26

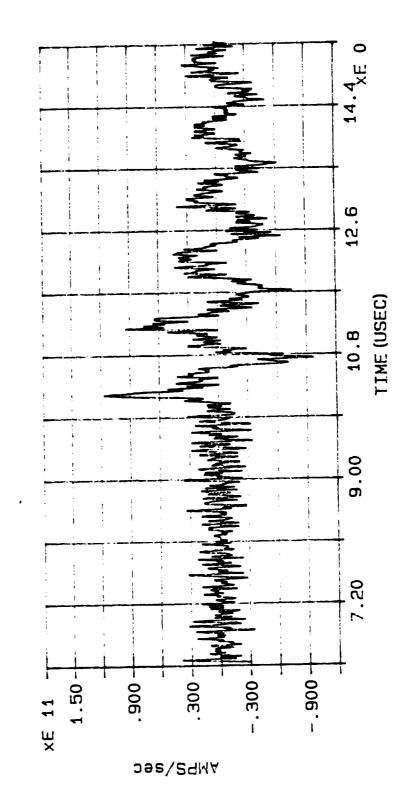
MARX di/dt

DATE: 05/17/90

TIME: 07: 29: 36.82

-E: C:\CAT\DATA4\MI400.026

MAX di/dt = 1.172E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #97, ATTACH POINT #4, DISCHARGE #26

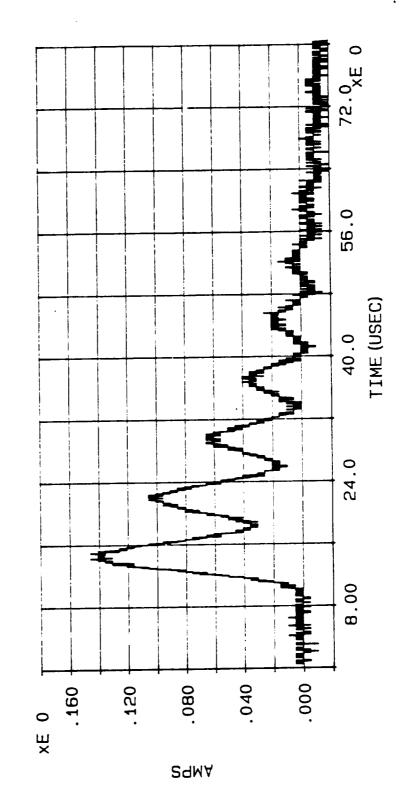
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

TIME: 17: 35: 18.05

FILE: C:\CAT\DATA4\MC408.026

MAX CURRENT = 1.462E+1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #96), PLOT #98, ATTACH POINT #4, DISCHARGE #26

MARX MEASUREMENT: CABLE CURRENT

05/17/90 DATE:

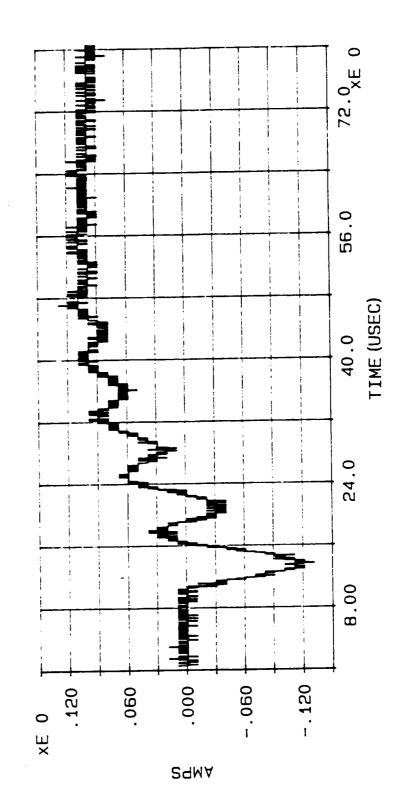
TIME:

17: 39: 34.39

C:\CAT\DATA4\MC410.026

FILE:

-1.317E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #96), PLOT #99, ATTACH POINT #4, DISCHARGE #26

MARX MEASUREMENT: INPUT CURRENT

05/16/90 DATE:

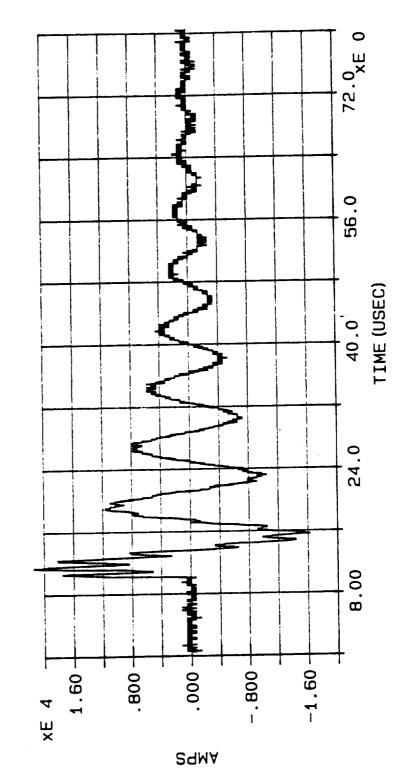
TIME:

20: 12: 53.47

C:\CAT\DATA4\MI406.027 FILE:

2.142E4 ACTION INTEGRAL MAX CURRENT =

1.617E3



INJECTION CURRENT WAVEFORM, PLOT #100, ATTACH POINT #4, DISCHARGE #27

MARX di/dt

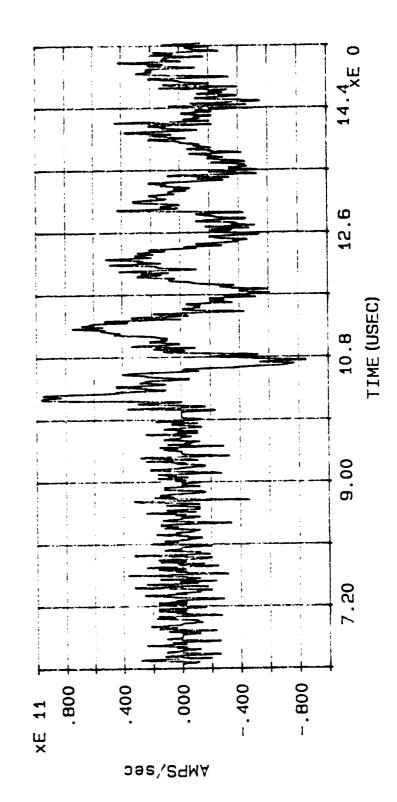
05/11/30 DATE:

07: 32: 40.38 TIME:

C:\CAT\DATA4\M1400.027

FILE:

9.682E10 MAX di/dt



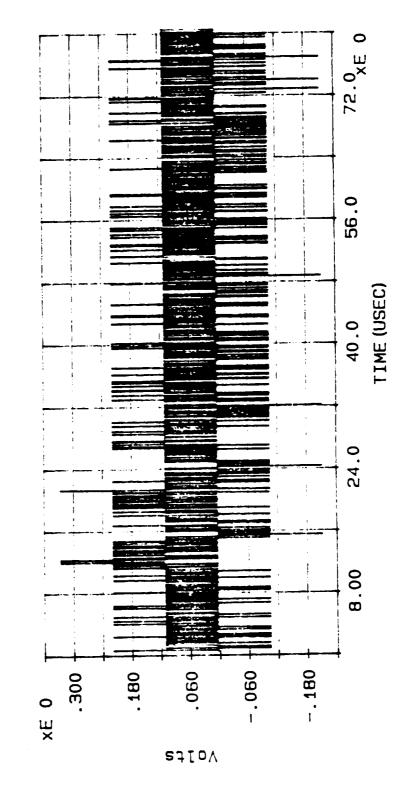
DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #101, ATTACH POINT #4, DISCHARGE #27

MARX MEASUREMENT: CABLE OC VOLTAGE

TIME: 08: 47: 03.29

FILE: C:\CAT\DATA4\MV408.027

MAX VOLTAGE = 3.269E-1



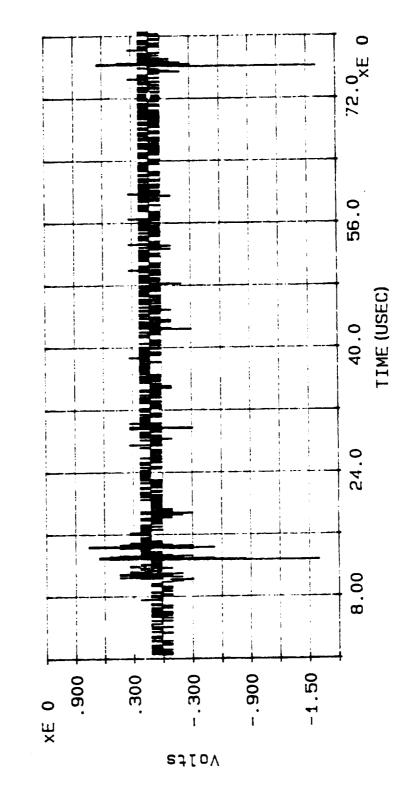
OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #100), PLOT #102, ATTACH POINT #4, DISCHARGE #27

MARX MEASUREMENT: CABLE OC VOLTAGE

TIME: 08: 42: 52.23

FILE: C:\CAT\DATA4\MV410.027

MAX VOLTAGE = -1.603E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #100), PLOT #103, ATTACH POINT #4, DISCHARGE #27

MARX MEASUREMENT: INPUT CURRENT

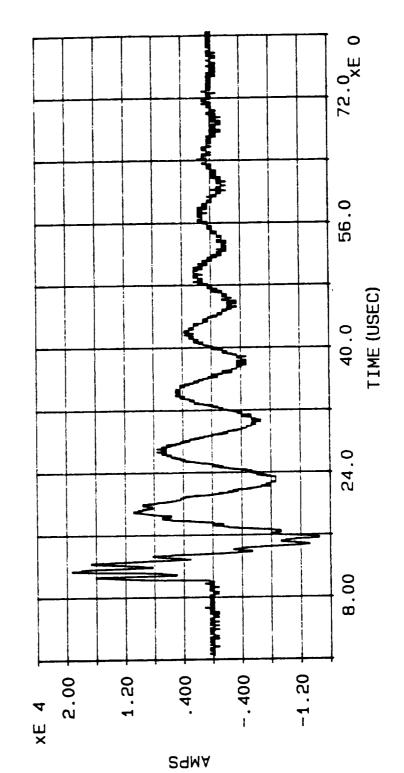
DATE: 05/16/90

TIME: 20: 16: 52

20: 16: 52.34

FILE: C:\CAT\DATA4\M1400.028

MAX CURRENT = 1.997E4
ACTION INTEGRAL = 1.357E3



INJECTION CURRENT WAVEFORM, PLOT #104, ATTACH POINT #4, DISCHARGE #28

05/11/90

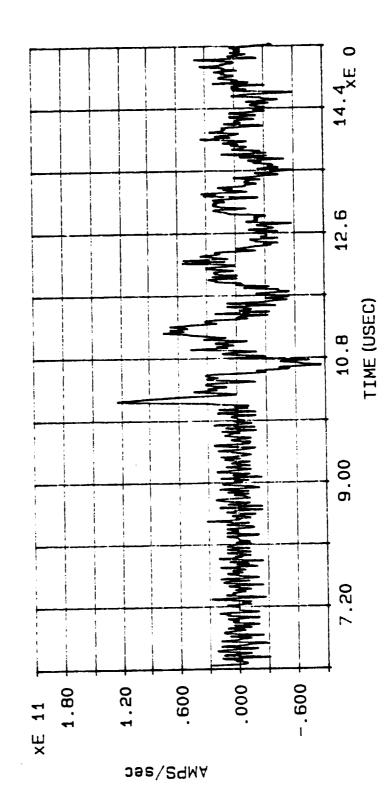
DATE: TIME:

07: 35: 55.86

C:\CAT\DATA4\MI400.028

FILE:

1.252E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #105, ATTACH POINT #4, DISCHARGE #28

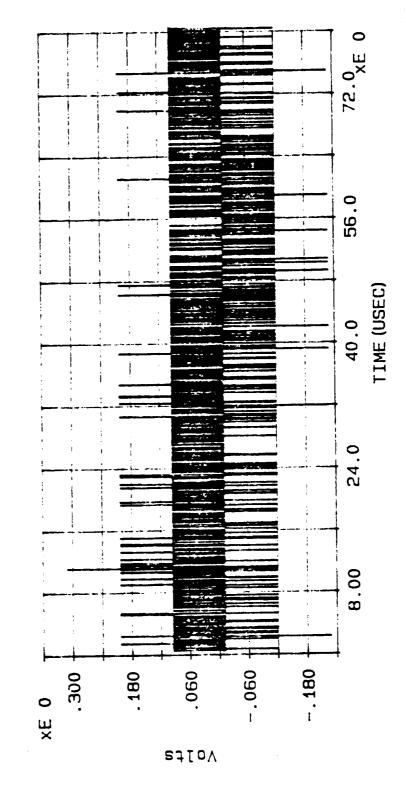
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 08: 37: 23.17

FILE: C:\CAT\DATA4\MV407.028

MAX VOLTAGE = -3.355E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #104), PLOT #106, ATTACH POINT #4, DISCHARGE #28

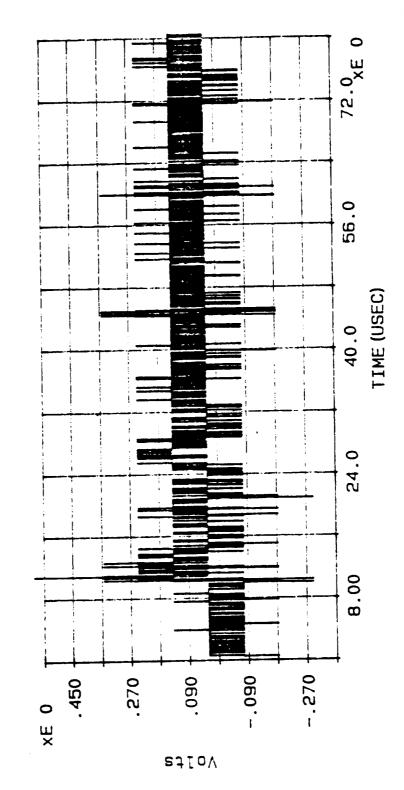
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 08: 32: 4(

: 08: 32: 40.08 : C:\CAT\DATA4\MC411.028

FILE: C:\CAT\DATA4\MC41 MAX VOLTAGE = -6.150E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #104), PLOT #107, ATTACH POINT #4, DISCHARGE #28

MARX MEASUREMENT: INPUT CURRENT

DATE: 05/16/90

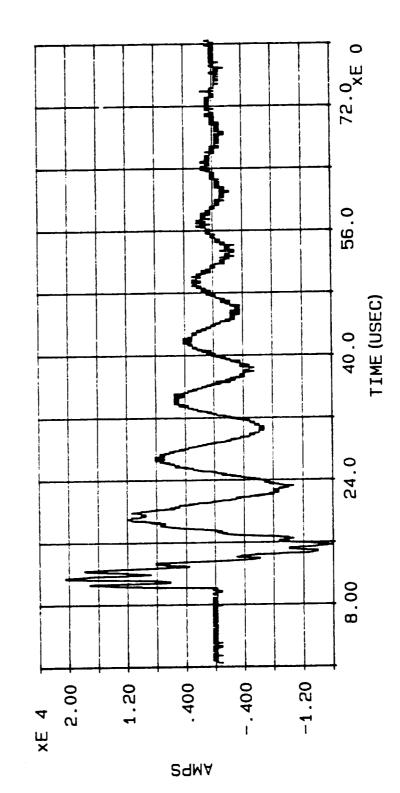
TIME: 20: 20: 53

20: 20: 53.85

FILE: C:\CAT\DATA4\MI400.029

MAX CURRENT = 2.051E4

ACTION INTEGRAL = 1.621E3



INJECTION CURRENT WAVEFORM, PLOT #108 ATTACH POINT #4, DISCHARGE #29

05/11/90

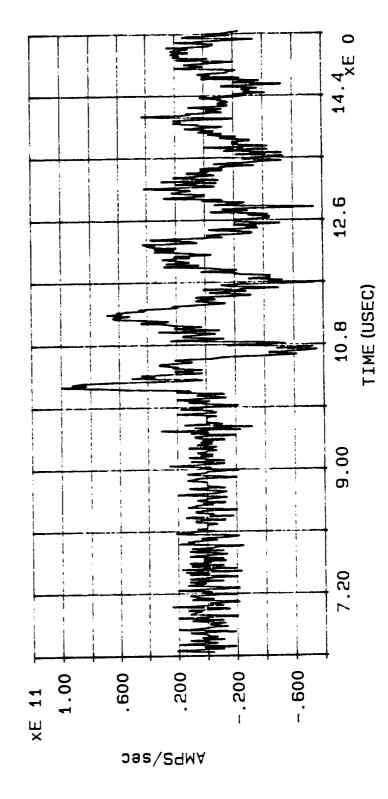
DATE: TIME:

07: 40: 31.69

C:\CAT\DATA4\MI400.029

FILE:

9.972E10 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #109, ATTACH POINT #4, DISCHARGE #29

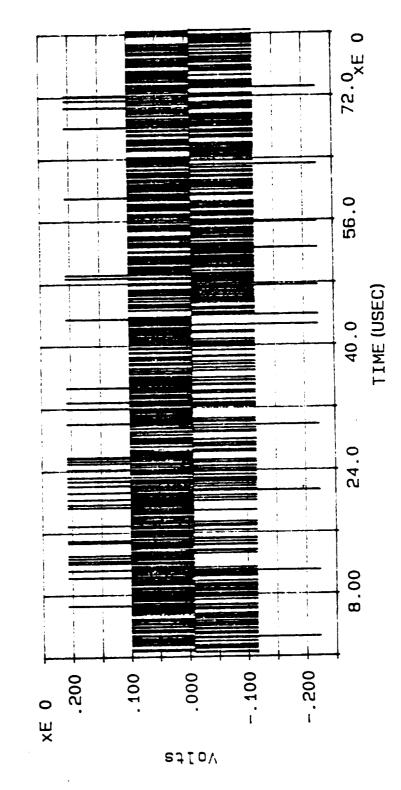
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 08: 26: 33.84

FILE: C:\CAT\DATA4\MV406.029

MAX VOLTAGE = -2.234E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #108), PLOT #110, ATTACH POINT #4, DISCHARGE #29

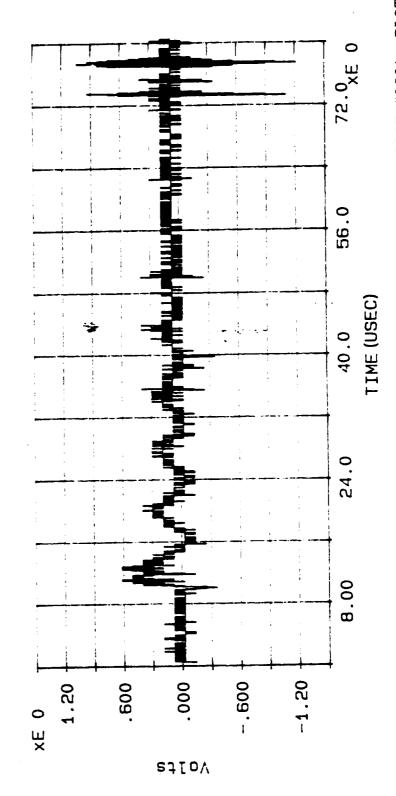
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 08: 21: 57.07

FILE: C:\CAT\DATA4\MV412.029

MAX VOLTAGE = 1.587E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #108), PLOT #111, ATTACH POINT #4, DISCHARGE #29

MARX MEASUREMENT: INPUT CURRENT

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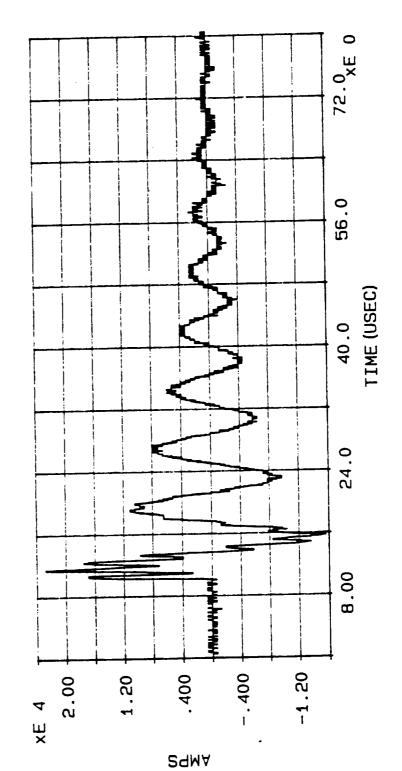
C:\CAT\DATA4\MI500.030

FILE:

MAX CURRENT =

2.345E4

1.517E3 11 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #112, ATTACH POINT #5, DISCHARGE #30

05/11/90 DATE:

TIME:

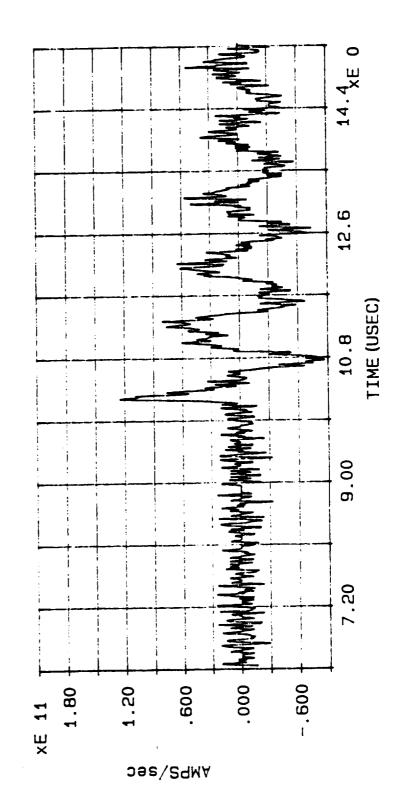
07: 44: 20.79

C:\CAT\DATA4\M1500.030

FILE:

MAX di/dt

1.252E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #113, ATTACH POINT #5, DISCHARGE #30

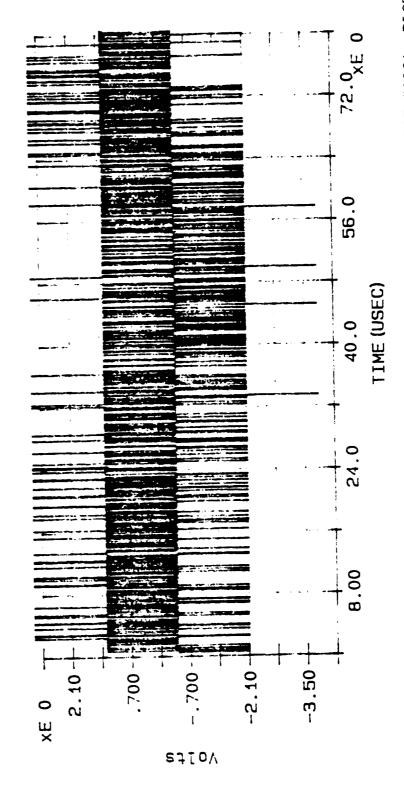
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 09: 43: 51.86

FILE: C:\CAT\DATA4\MV506.030

MAX VOLTAGE = 4.714E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #112), PLOT #114, ATTACH POINT #5, DISCHARGE #30

MARX MEASUREMENT: CABLE CURRENT

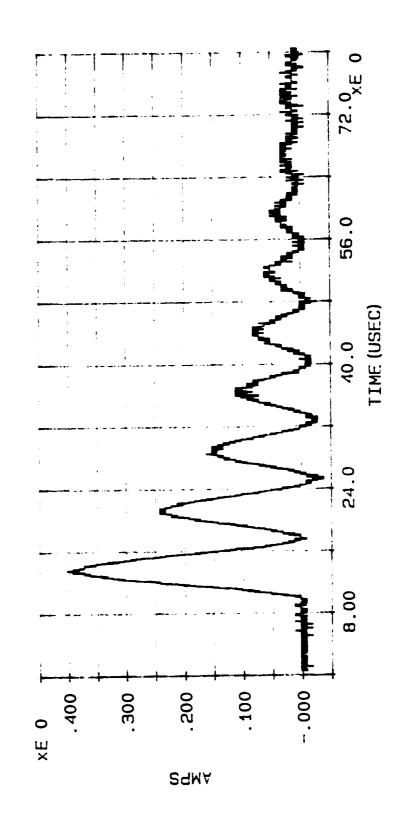
DATE: 05/17/90

TIME: 09: 48: 52.19

C:\CAT\DATA4\MC512.030

FILE:

MAX CURRENT = 4.036E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #112), PLOT #115, ATTACH POINT #5, DISCHARGE #30

MARX MEASUREMENT: INPUT CURRENT

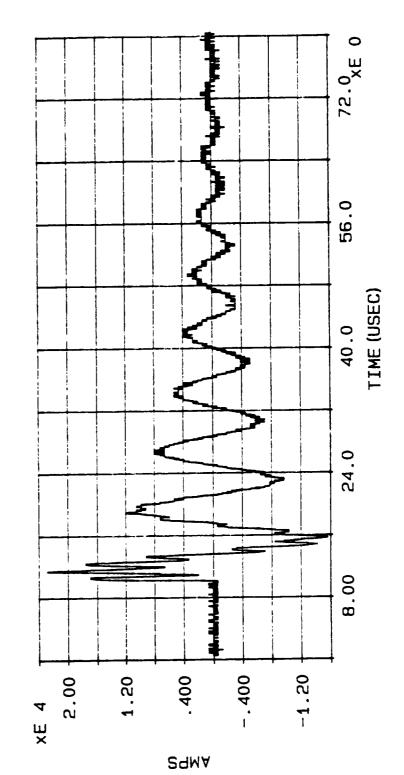
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ATE:

TIME: 20: 28: 41.93

EC: 11:33

FILE: C:\CAT\DATA4\MI500.031
MAX CURRENT = 2.283E4

ACTION INTEGRAL = 1.566E3



INJECTION CURRENT WAVEFORM, PLOT #116, ATTACH POINT #5, DISCHARGE #31

MARX MEASUREMENT: CABLE OC VOLTAGE

05/11/90 DATE:

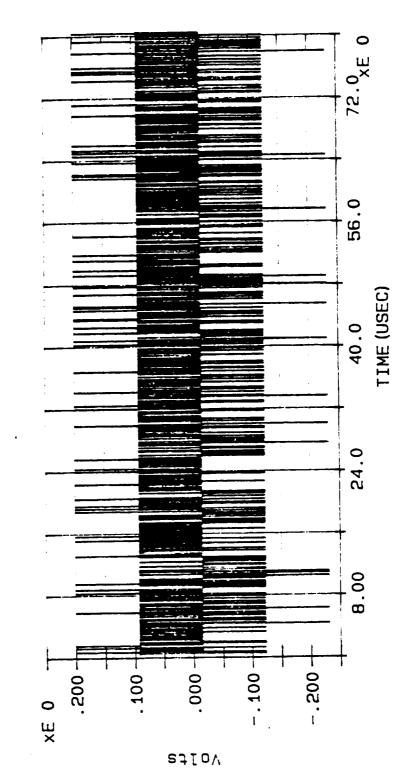
TIME:

08: 16: 02.69

C:\CAT\DATA4\MV506.031

FILE:

-3.384E-1 MAX VOLTAGE



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #116), PLOT #118, ATTACH POINT #5, DISCHARGE #31

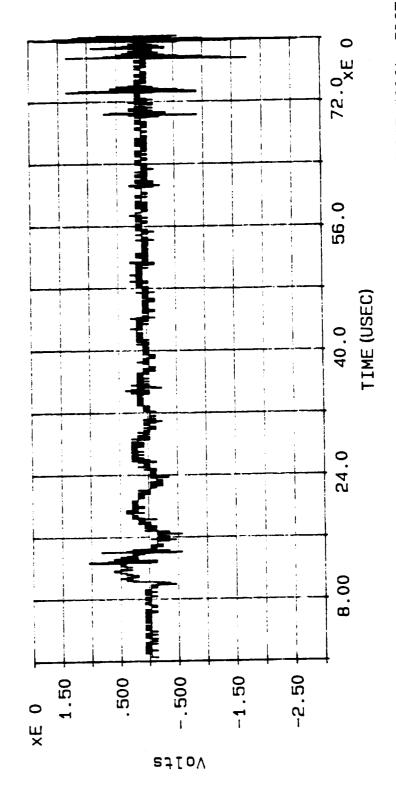
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

TIME: 08: 10: 06.72

FILE: C:\CAT\DATA4\MV512.031

MAX VOLTAGE = -3.263E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #116), PLOT #119, ATTACE POINT #5, DISCHARGE #31

MARX MEASUREMENT: INPUT CURRENT

05/16/90 DATE:

TIME:

20: 32: 26.63

FILE:

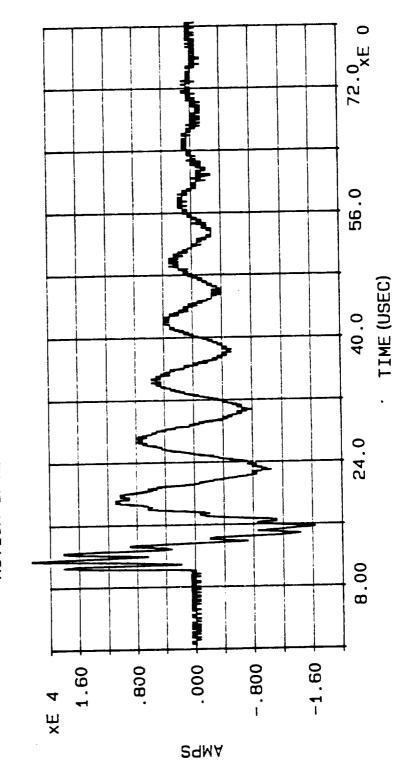
C:\CAT\DATA4\M1500.032

MAX CURRENT =

2.334E4

ACTION INTEGRAL

1.631E3



INJECTION CURRENT WAVEFORM, PLOT #120, ATTACH POINT #5, DISCHARGE #32

05/11/90 DATE:

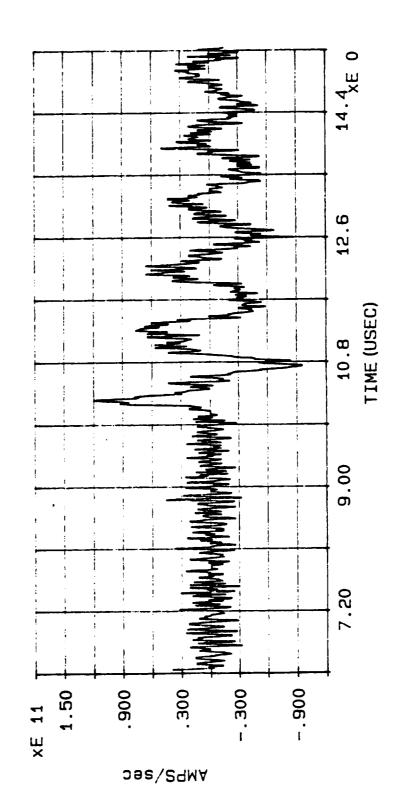
TIME:

07: 50: 34.23

C:\CAT\DATA4\MI500.032

FILE:

1.184E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #121, ATTACH POINT #5, DISCHARGE #32

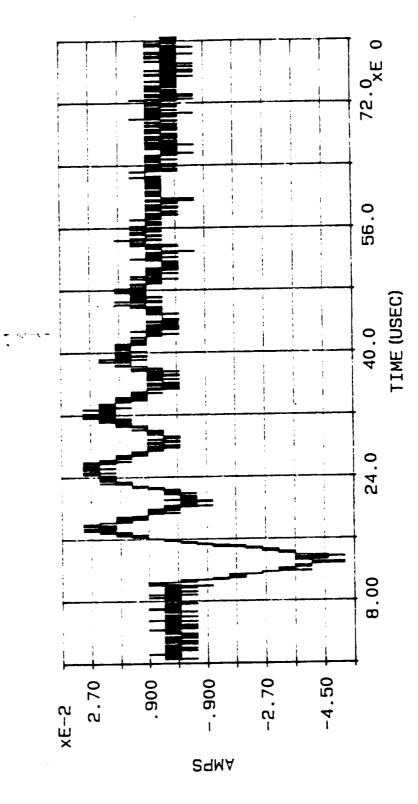
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

TIME: 07: 55: 40.05

FILE: C:\CAT\DATA4\MC506.032

MAX CURRENT = -5.101E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #120), PLOT #122, ATTACH POINT #5, DISCHARGE #32

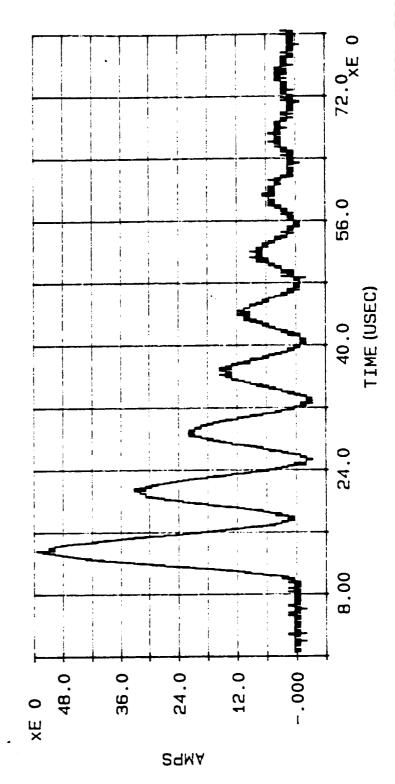
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/17/90

TIME: 08: 02: 02.61

FILE: C:\CAT\DATA4\MC512.032

MAX CURRENT = 5.351E1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #120), PLOT #123, ATTACH POINT #5, DISCHARGE #32

MARX MEASUREMENT: INPUT CURRENT

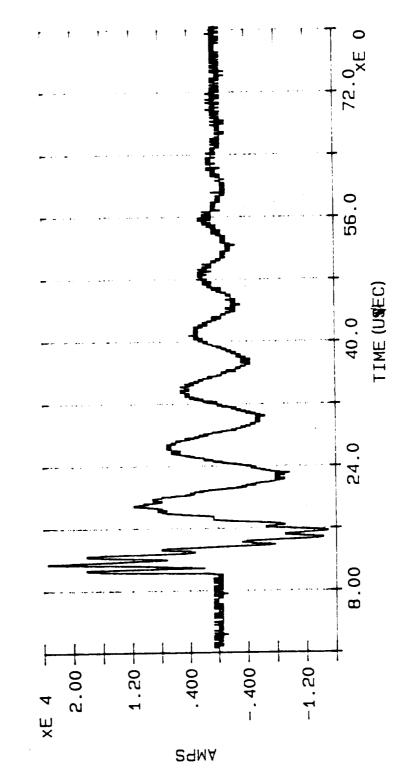
DATE: 05/18/90

TIME: 07: 04: 14.94

FILE: C:\CAT\DATA4\MI50C.033

MAX CURRENT = 2.348E4

ACTION INTEGRAL = 1.443E3



INJECTION CURRENT WAVEFORM, PLOT #124, ATTACH POINT #5, DISCHARGE #33

05/18/90 DATE:

TIME:

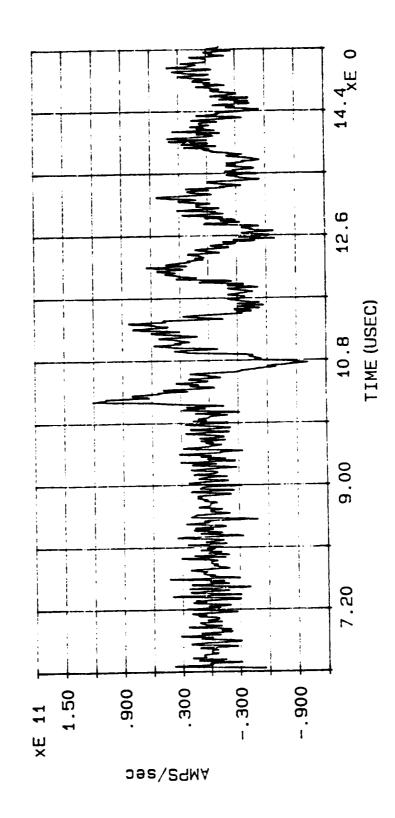
08: 20: 29.63

C:\CAT\DATA4\MI500.033

FILE:

1.213E11

MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #125, ATTACH POINT #5, DISCHARGE #33

MARX MEASUREMENT: CABLE CURRENT

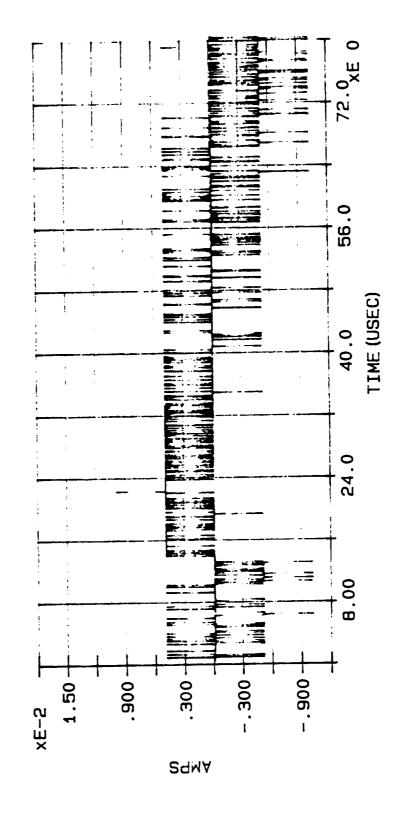
DATE: 05/18/90

TIME: 18: 56: 55.37

FILE: C:\CAT\DATA4\MC507.033

-1.018E-2

MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #124), PLOT #126, ATTACH POINT #5, DISCHARGE #33

MARX MEASUREMENT: INPUT CURRENT

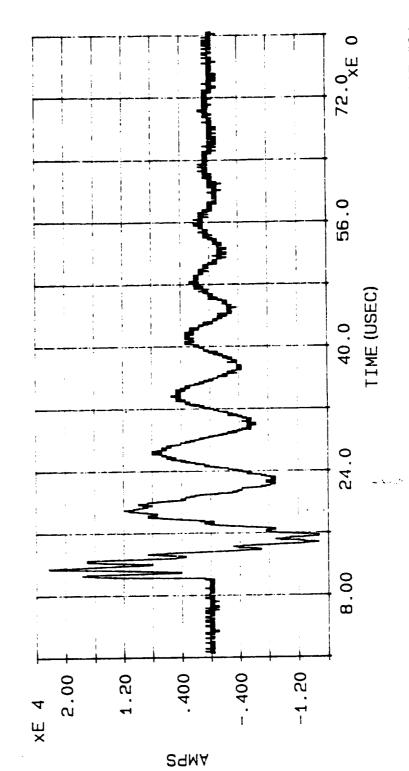
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DATE:

TIME: 07: 08: 20.57

FILE: C:\CAT\DATA4\M1500.034

MAX CURRENT = 2.233E4

ACTION INTEGRAL = 1.445E3



INJECTION CURRENT WAVEFORM, PLOT #128, ATTACH POINT #5, DISCHARGE #34

D-129 PRECEDING PAGE BLANK NOT FILMED

05/18/90

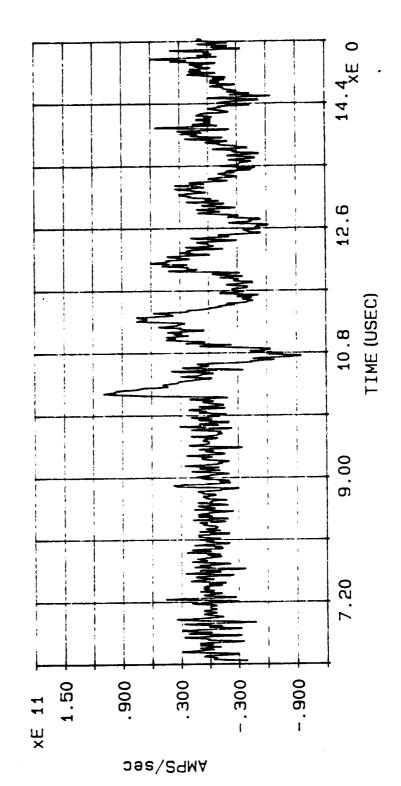
DATE: TIME:

08: 17: 28.43

FILE:

C:\CAT\DATA4\M1500.034

1.091E11 MAX di/dt

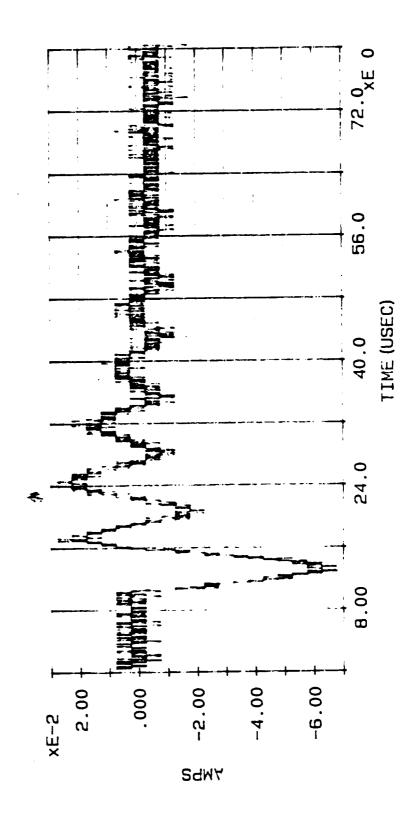


DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #129, ATTACH POINT #5, DISCHARGE #34

MARX MEASUREMENT: CABLE CURRENT

05/18/90	19: 05: 40.51	
DATE:	TIME:	

FILE: C:\CAT\DATA4\MC506.034
MAX CURRENT = -7.271E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #128), PLOT #130, ATTACH POINT #5, DISCHARGE #34

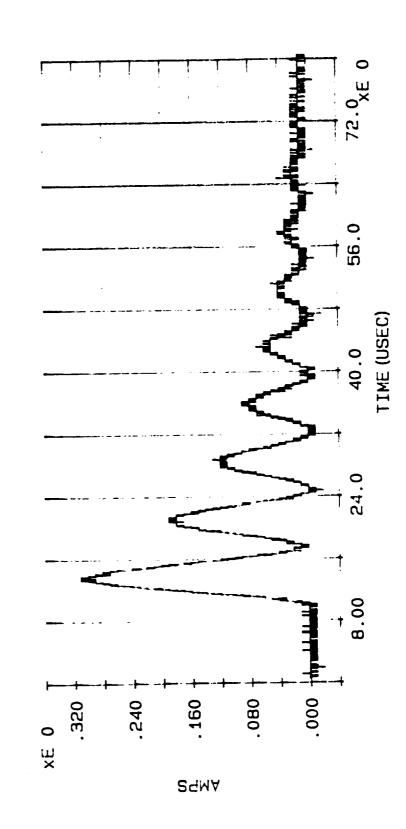
MARX MEASUREMENT: CABLE CURRENT

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TIME: 19: 09: 41.47

FILE: C:\CAT\DATA4\MC512.034

MAX CURRENT = 3.224E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #128), PLOT #131, ATTACH POINT #5, DISCHARGE #34

MARX MEASUREMENT: INPUT CURRENT

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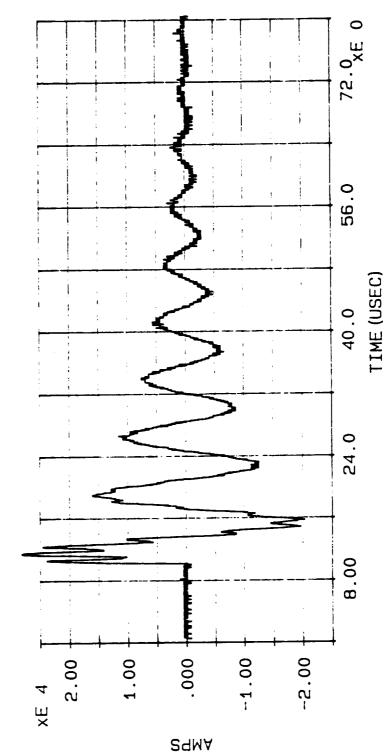
TIME:

07: 12: 14.38

C:\CAT\DATA4\MI400.035 FILE:

2.848E4 MAX CURRENT =





INJECTION CURRENT WAVEFORM, PLOT #132, ATTACH POINT #4, DISCHARGE #35

DATE: 05/18/90

TIME: 08:

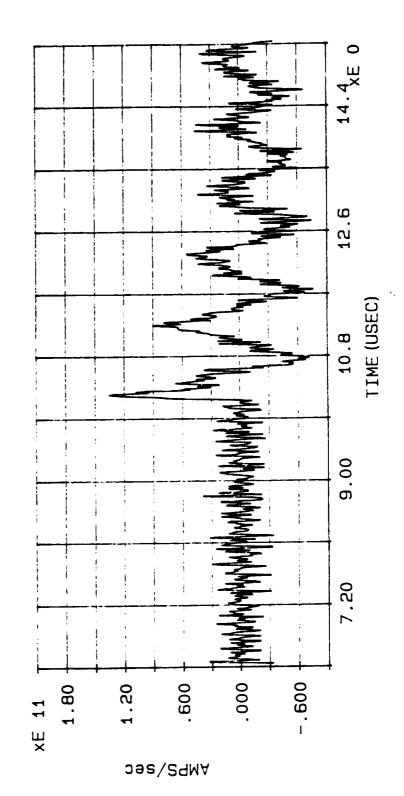
08: 13: 58.45

C:\CAT\DATA4\MI400.035

FILE:

MAX di/dt =

1.359E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM. PLOT #133, ATTACH POINT #4, DISCHARGE #35

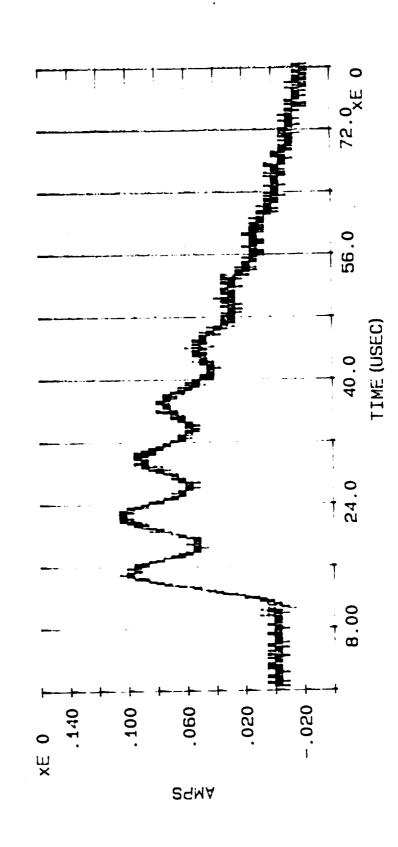
MARX MEASUREMENT: CABLE CURRENT

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TIME: 19: 13: 28.09

FILE: C:\CAT\DATA4\MC4507.035

MAX CURRENT = 1.111E-



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #132), PLOT #134, ATTACH POINT #4, DISCHARGE #35

MARX MEASUREMENT: CABLE CURRENT

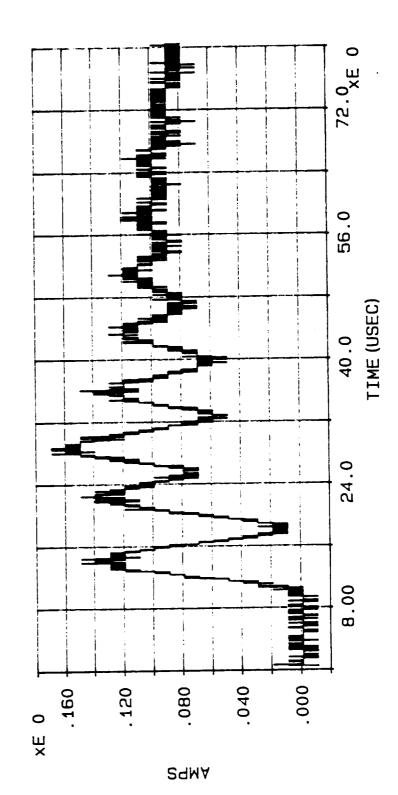
DATE: 05/18/90

TIME: 19: 21: 13.81

FILE: C:\CAT\DA

C:\CAT\DATA4\MC411.035

MAX CURRENT = 1.691E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #132), PLOT #135, ATTACH POINT #4, DISCHARGE #35

MARX MEASUREMENT: INPUT CURRENT

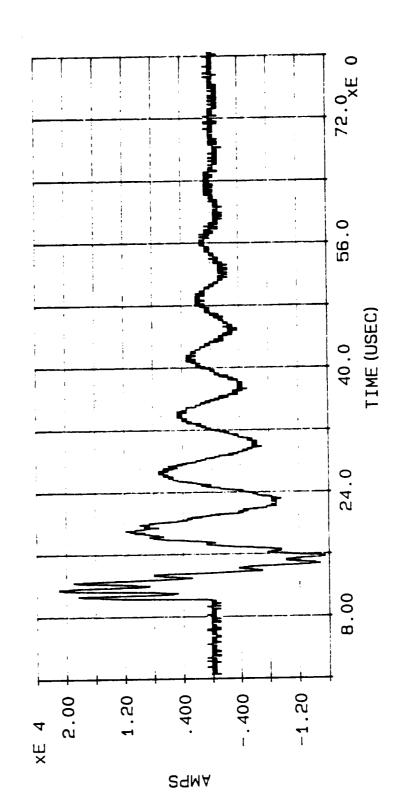
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TIME: 07:16:07.76

FILE: C:\CAT\DATA4\M1400.036

MAX CURRENT = 2.166E4

ACTION INTEGRAL = 1.502E3



INJECTION CURRENT WAVEFORM, PLOT #136, ATTACH POINT #4, DISCHARGE #36

05/18/90

DATE: TIME:

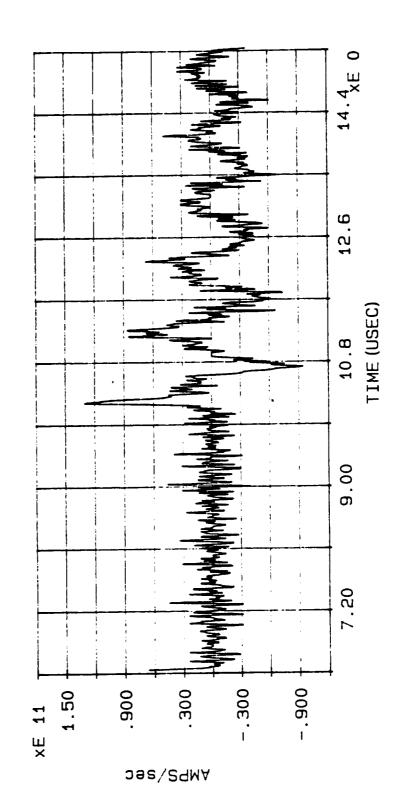
08: 10: 48.13

C:\CAT\DATA4\M1400.036

FILE:

MAX di/dt

1.307E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #137, ATTACH POINT #4, DISCHARGE #36

MARX MEASUREMENT: CABLE OC VOLTAGE

05/17/90 DATE:

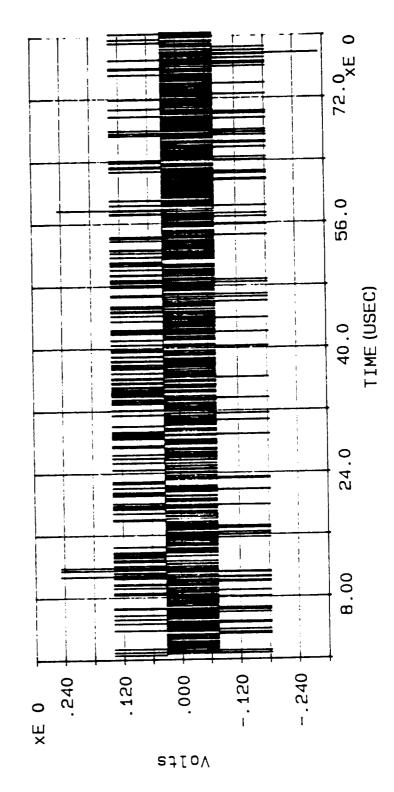
TIME:

18: 10: 41.41

FILE:

C:\CAT\DATA4\MV407.036

3.557E-1 MAX VOLTAGE =



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #136), PLOT #138, ATTACH POINT #4, DISCHARGE #36

MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/17/90

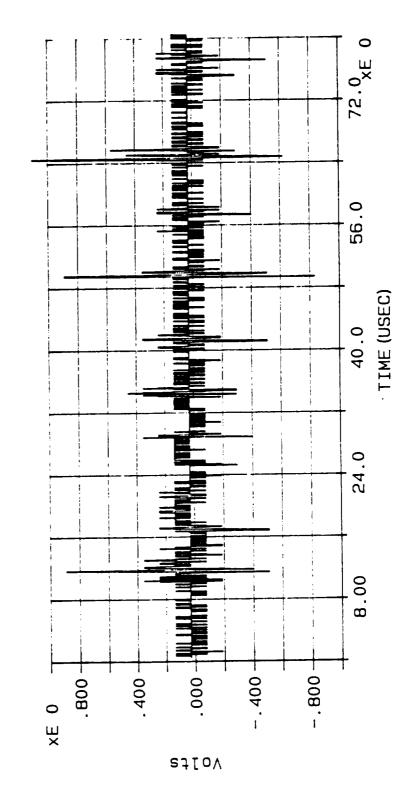
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TIME: 17: 49: 19.45

C:\CAT\DATA4\MV411.036

FILE:

MAX VOLTAGE = -1.155E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #136), PLOT #139, ATTACH POINT #4, DISCHARGE #36

MARX MEASUREMENT: INPUT CURRENT

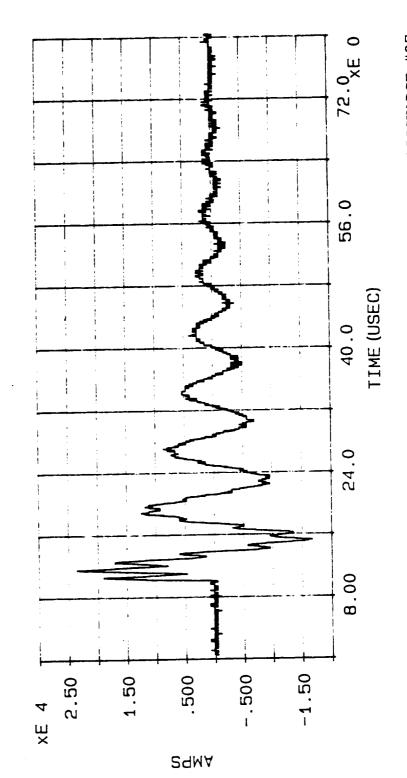
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TIME: 07: 20: 04.99

LE: C:\CAT\DATA4\MI100.037

FILE: C:\CAT\DATA4\MII MAX CURRENT = 2.362E4

ACTION INTEGRAL = 1.634E3



INJECTION CURRENT WAVEFORM, PLOT #140, ATTACH POINT #1, DISCHARGE #37

05/18/90

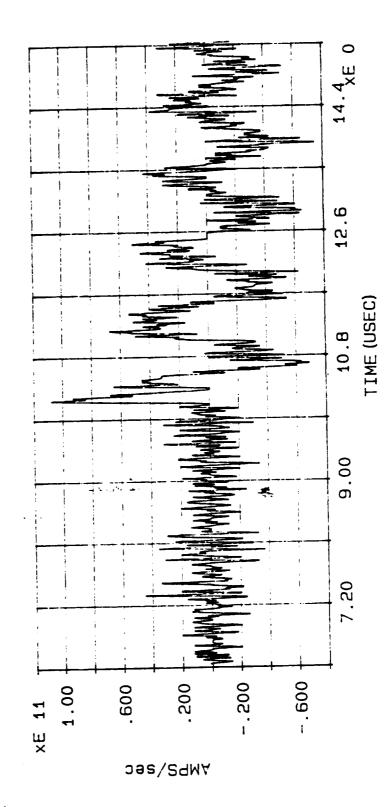
08: 07: 42.81 DATE: TIME:

C:\CAT\DATA4\MI100.037

FILE:

MAX di/dt

1.078E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #141, ATTACH POINT #1, DISCHARGE #37

MARX MEASUREMENT: CABLE CURRENT

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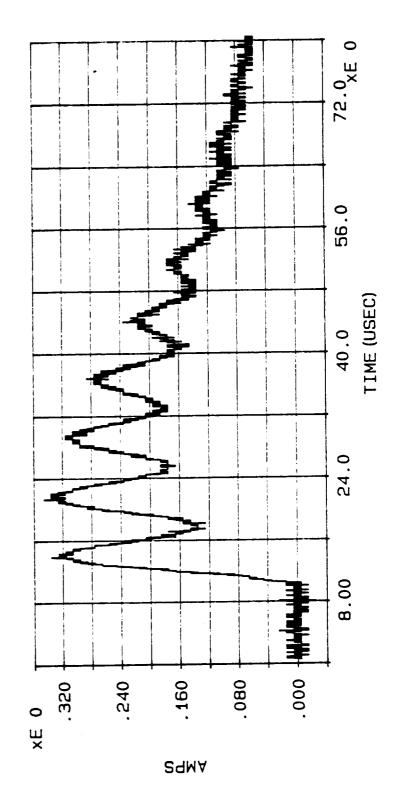
TIME:

19: 25: 50.52

FILE:

C:\CAT\DATA4\MC107.037

3.464E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #140), PLOT #142, ATTACH POINT #1, DISCHARGE #37

MARX MEASUREMENT: CABLE CURRENT

DATE: 05/18/90

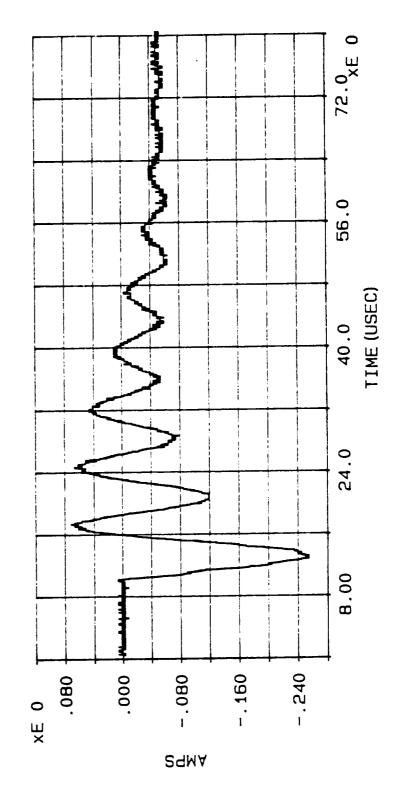
TIME: 19: 30: 3

19: 30: 35.31

C:\CAT\DATA4\MC111.037

FILE:

MAX CURRENT = -2.646E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #141), PLOT #143, ATTACH POINT #1, DISCHARGE #37

MARX MEASUREMENT: INPUT CURRENT

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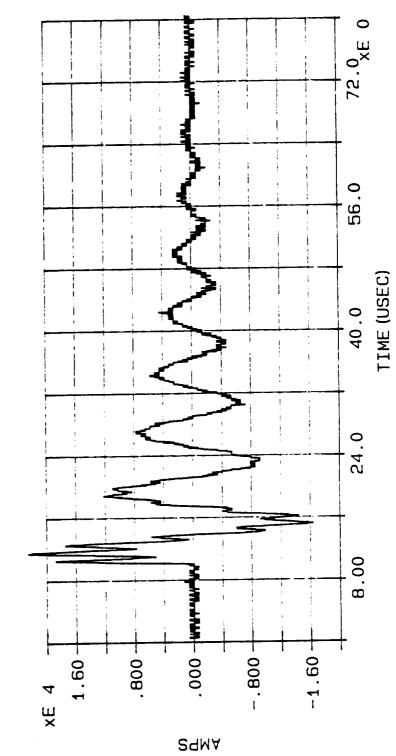
C:\CAT\DATA4\MI100.038

MAX CURRENT

2.270E4

ACTION INTEGRAL

1.564E3



INJECTION CURRENT WAVEFORM, PLOT #144, ATTACH POINT #1, DISCHARGE #38

MARX di/dt

05/18/90 DATE:

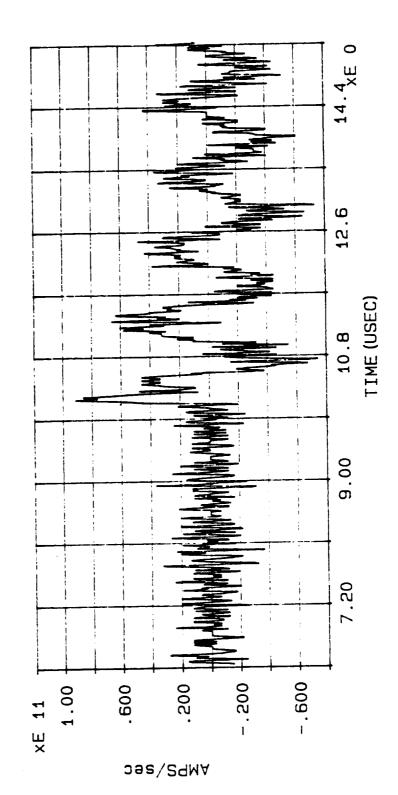
TIME:

08:04:32.39

C:\CAT\DATA4\MI100.038

FILE:

9.166E10 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #145, ATTACH POINT #1, DISCHARGE #38

MARX MEASUREMENT: CABLE OC VOLTAGE

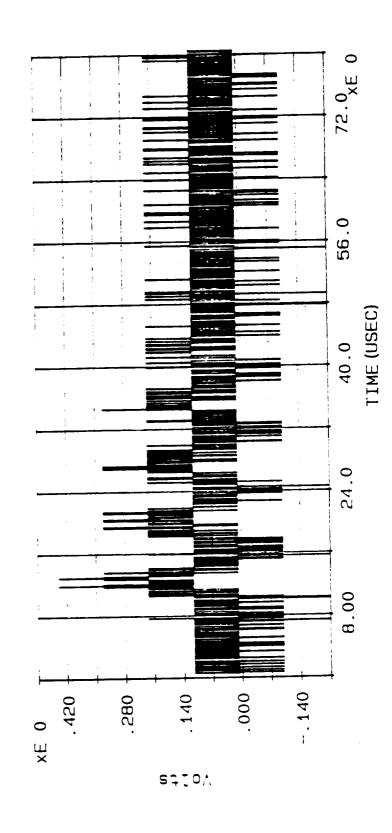
DATE: 05/17/90

TIME: 18: 16: 54.69

C:\CAT\DATA4\MV107.038

FILE:

MAX VOLTAGE = 4.397E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #144), PLOT #146, ATTACH POINT #1, DISCHARGE #38

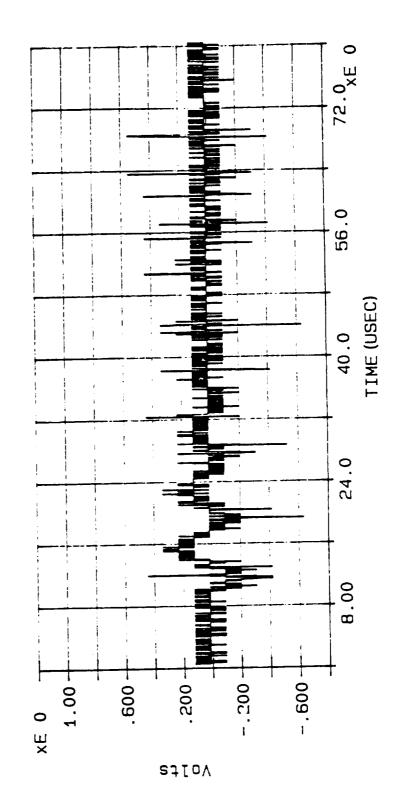
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/18/90

TIME: 08: 25: 21.67

FILE: C:\CAT\DATA4\MV111.038

MAX VOLTAGE = -8.457E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #144), PLOT #147, ATTACH POINT #1, DISCHARGE #38

MARX MEASUREMENT: INPUT CURRENT

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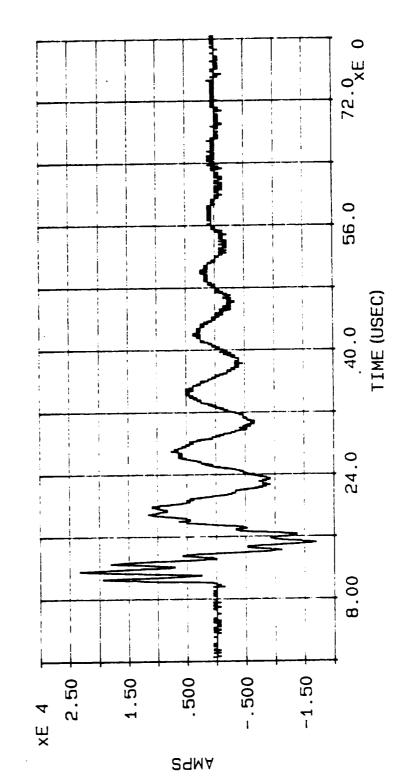
07: 29: 51.98 TIME:

FILE:

C:\CAT\DATA4\MI200.039

2.336E4 MAX CURRENT =





INJECTION CURRENT WAVEFORM, PLOT #148, ATTACH POINT #2, DISCHARGE #39

MARX di/dt

DATE: 05/18/90

TIME: 08: 00: 20.55

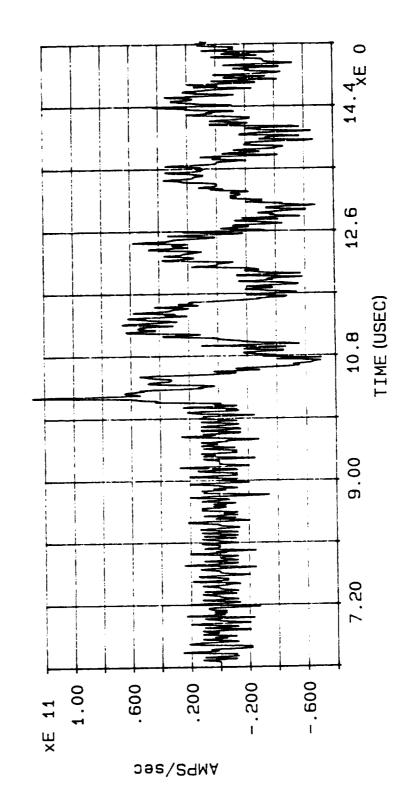
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C:\CAT\DATA4\M1200.039

FILE:

MAX di/dt =

1.281E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #149, ATTACH POINT #2, DISCHARGE #39

MARX MEASUREMENT: CABLE OC VOLTAGE

05/18/90 DATE:

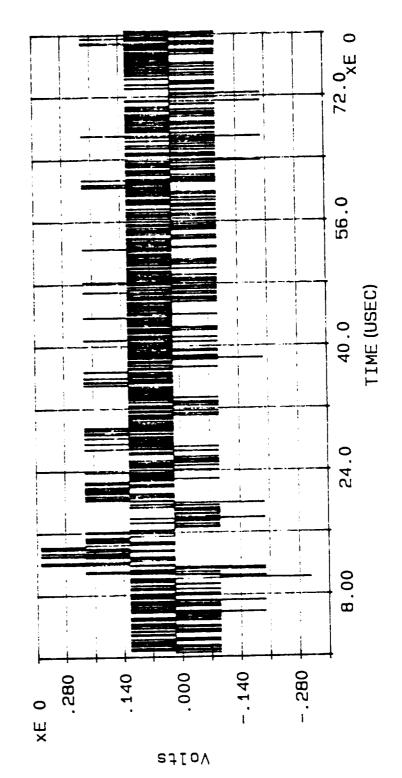
TIME:

08: 29: 29.60

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FILE

-5.223E-1 MAX VOLTAGE



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #148), PLOT #150, ATTACH POINT #2, DISCHARGE #39

MARX MEASUREMENT: CABLE OC VOLTAGE

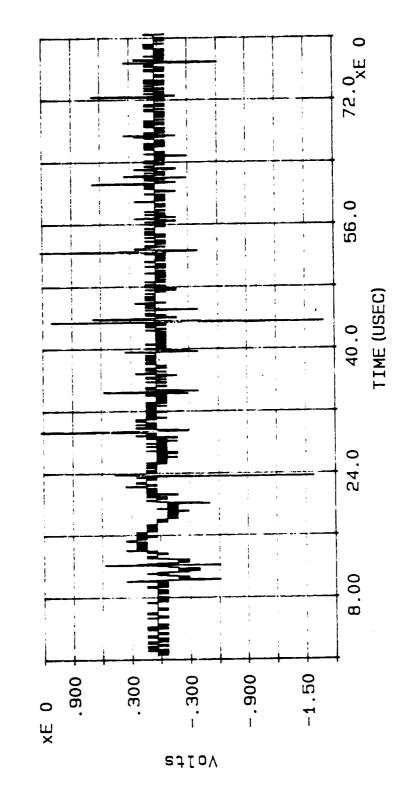
DATE: 05/18/90

TIME: 08: 34: 04

08: 34: 04.17

FILE: C:\CAT\DATA4\MV211.039

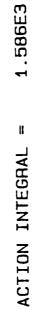
MAX VOLTAGE = 1.762E0

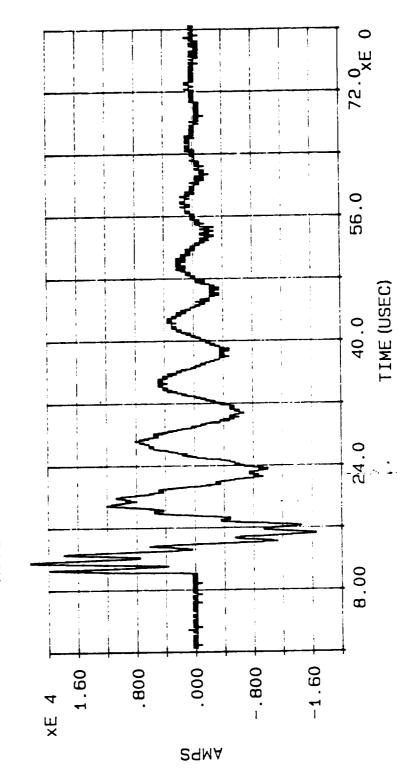


OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #148), PLOT #151, ATTACH POINT #2, DISCHARGE #39

MARX MEASUREMENT: INPUT CURRENT

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INJECTION CURRENT WAVEFORM, PLOT #152, ATTACH POINT #2, DISCHARGE #40

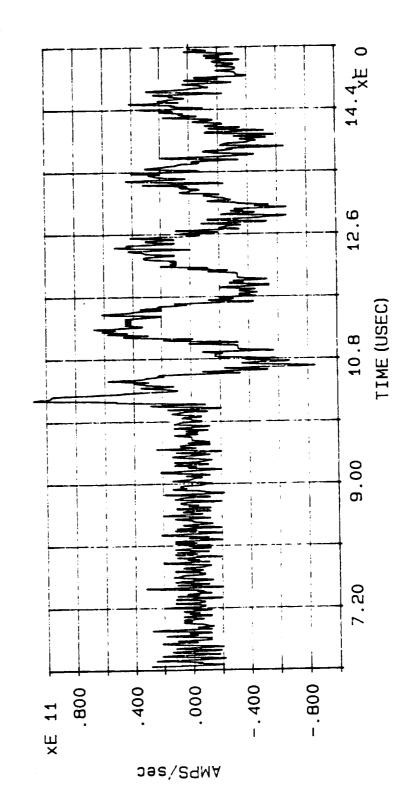
MARX di/dt

05/18/90 DATE: TIME:

07: 57: 12.16

C:\CAT\DATA4\MI200.040

1.091E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #153, ATTACH POINT #2, DISCHARGE #40

MARX MEASUREMENT: CABLE CURRENT

DATE:

05/18/30

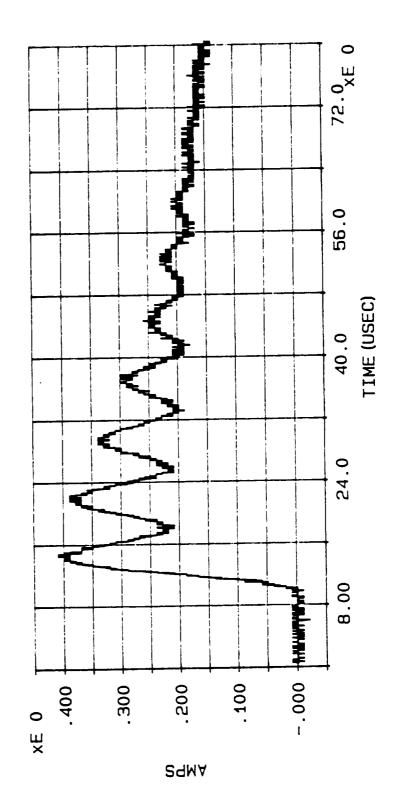
19: 35: 28.72

TIME:

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4.094E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #152), PLOT #154, ATTACH POINT #2, DISCHARGE #40

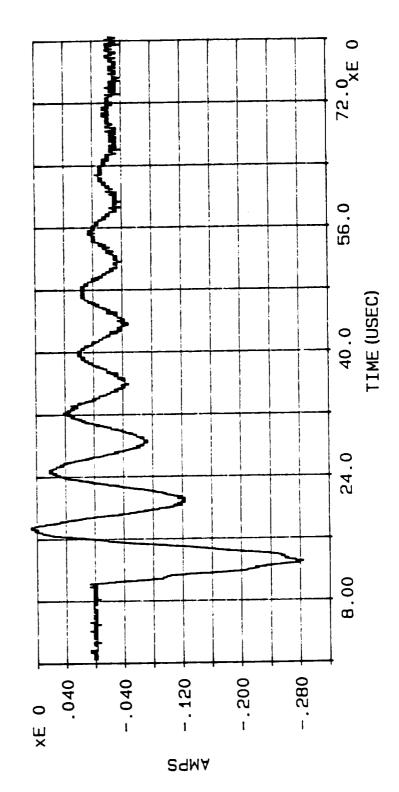
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/18/90

TIME: 19: 39: 16.06

FILE: C:\CAT\DATA4\MC211.040

MAX CURRENT = -2.839E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #152), PLOT #155, ATTACH POINT #2, DISCHARGE #40

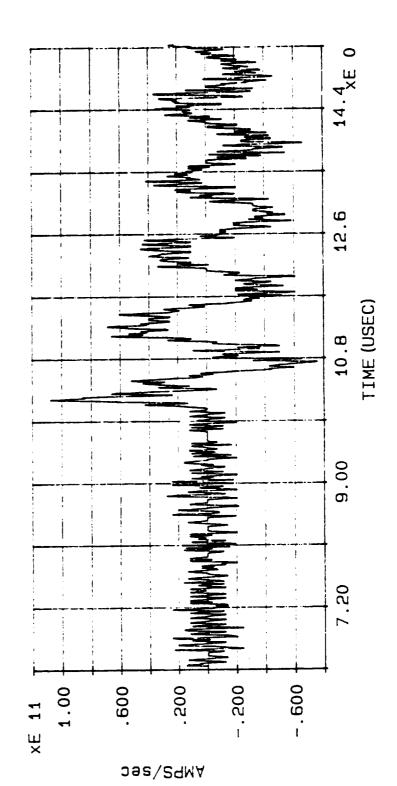
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FILE:

1.078E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #157, ATTACH POINT #3, DISCHARGE #41

MARX MEASUREMENT: CABLE CURRENT

DATE: 05/18/90

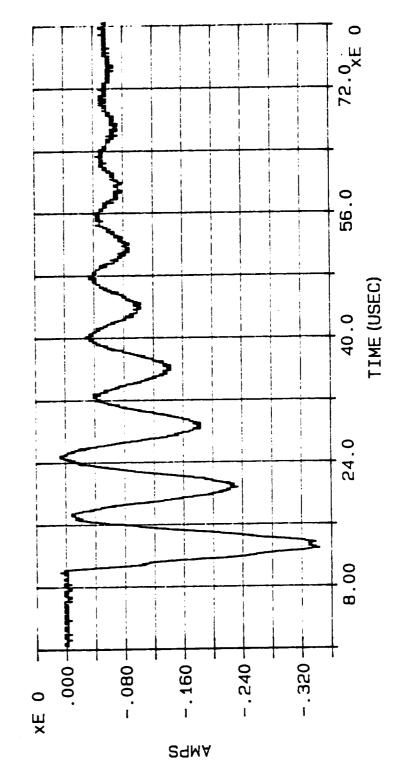
TIME: 19: 47

19: 47: 52.30

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C:\CAT\DATA4\MC311.041

MAX CURRENT = -3.439E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #156), PLOT #159, ATTACH POINT #3, DISCHARGE #41

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MARX MEASUREMENT: INPUT CURRENT

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TIME: 07: 41: 4

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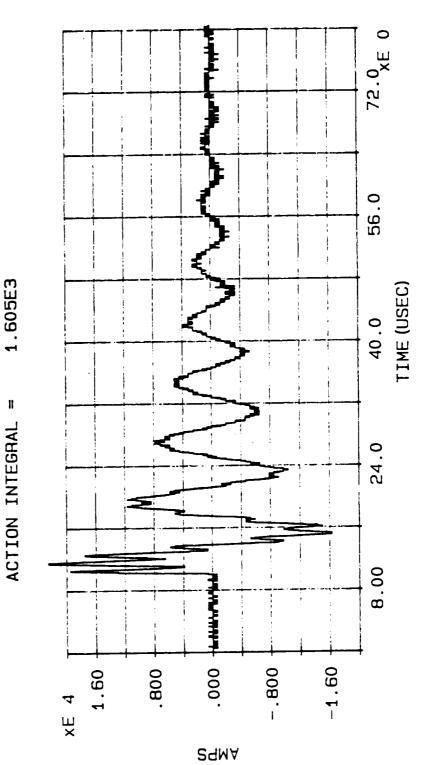
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FILE:

MAX CURRENT = 2.341E4

TION INTEGRAL = 1.60



INJECTION CURRENT WAVEFORM, PLOT #160, ATTACH POINT #3, DISCHARGE #42

MARX di/dt

05/18/90

DATE: TIME:

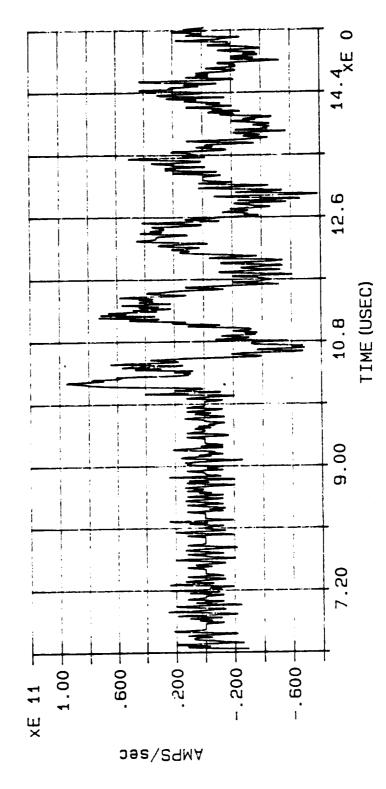
07: 50: 25.88

FILE:

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MAX di/dt

9.553E10



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #161, ATTACH POINT #3, DISCHARGE #42

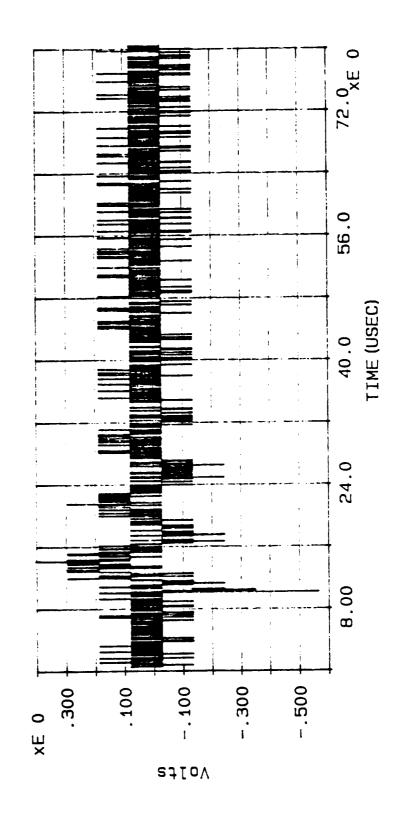
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/18/90

TIME: 08: 38: 23.59

FILE: C:\CAT\DATA4\MV307.042

MAX VOLTAGE = -5.662E-1



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #160), PLOT #162, ATTACH POINT #3, DISCHARGE #42

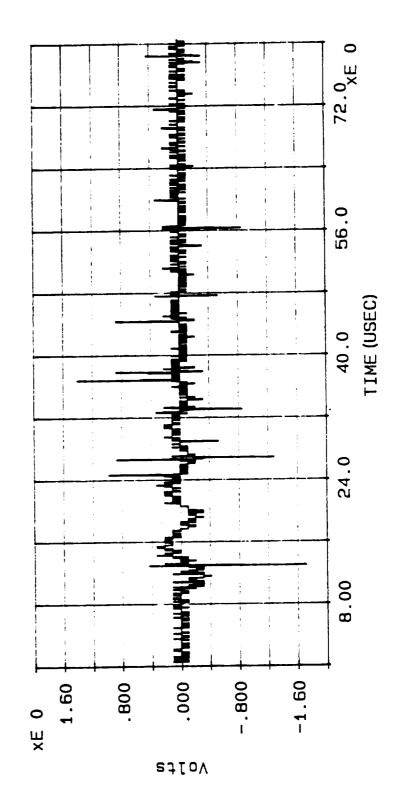
MARX MEASUREMENT: CABLE OC VOLTAGE

DATE: 05/18/90

TIME: 08: 43: 02.44

FILE: C:\CAT\DATA4\MV311.042

MAX VOLTAGE = -1.926E0



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #160), PLOT #163, ATTACH POINT #3, DISCHARGE #42

COMPOSITE CURRENT BANK: HIGH CURRENT

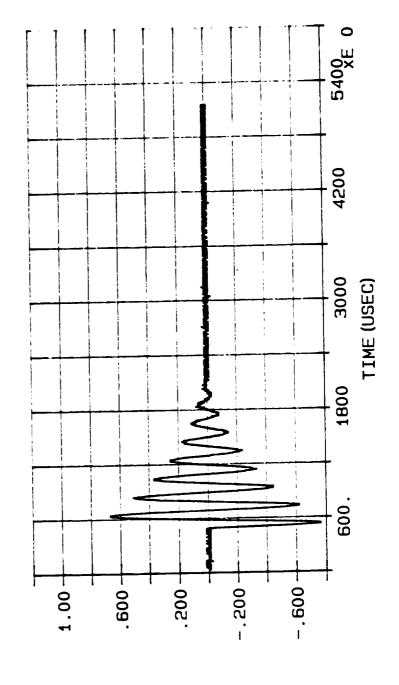
DATE: 05/18/90

TIME: 09: 30: 52.36

datap FILE: C:\HCI\H_CHAN1.043

MAX CURRENT = -7.790E4

ACTION INTEGRAL = 1.115E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #164, ATTACH POINT #3, DISCHARGE #43

XE 55

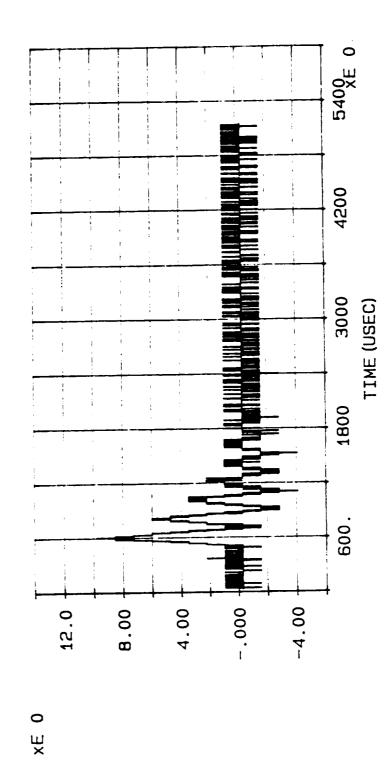
DATE: 05/18/90

TIME: 09: 44: 36.02

datap FILE: C:\HCI\H_CHAN2.043

MAX CURRENT = 9.818E0

ACTION INTEGRAL = 1.190E-2



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #164), EMI SHIELDS CLOSED PLOT #165, ATTACH POINT #3, DISCHARGE #43

P2100 PROBE

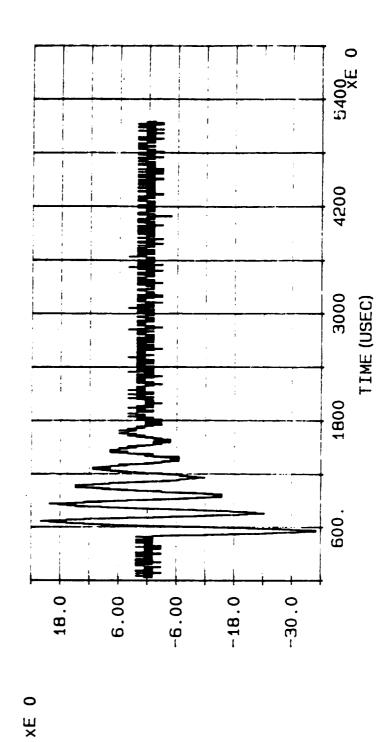
DATE: 05/18/90

TIME: 09: 30: 52.36

datap FILE: C:\HCI\H_CHAN3.043

CABLE # 6, NET SYSTEM GAIN = - 39 dB SHORT CIRCUIT -3.496E1 u MAX CURRENT

ACTION INTEGRAL = 1.736E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #164), EMI SHIELDS CLOSED, PLOT #166, ATTACH POINT #3, DISCHARGE #43

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/18/90

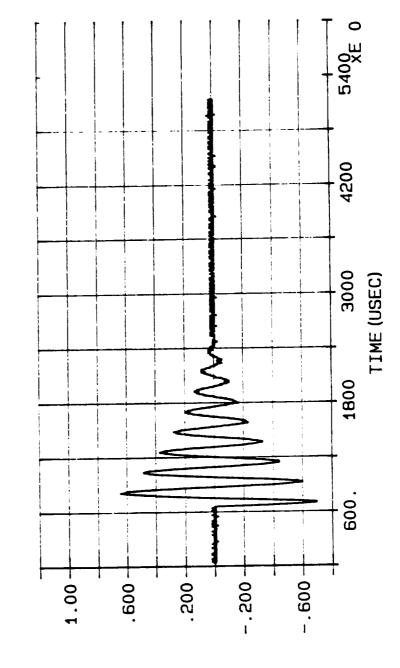
TIME: 11: 11:

TIME: 11: 11: 41.96

datap FILE: C:\HCI\H_CHAN1.044

MAX CURRENT = -6.940E4

ACTION INTEGRAL = 1.116E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #167, ATTACH POINT #3, DISCHARGE #44

XE 5

05/18/90

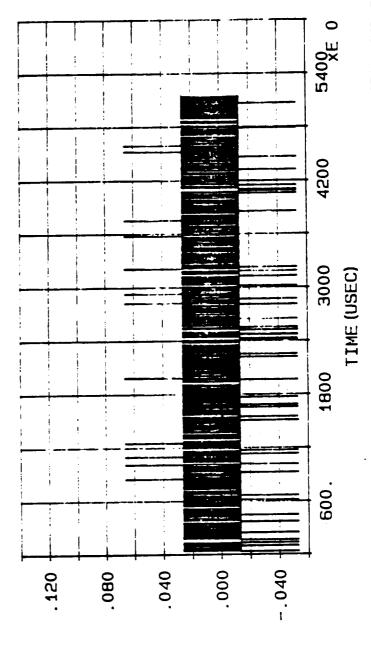
TIME: DATE:

11: 11: 41.96

C:\HCI\H_CHAN2.044 datap FILE:

u ACTION INTEGRAL

OPEN CIRCUIT 2.540E-6 -9.311E-2 MAX CURRENT =



SAMA

OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #167), EMI SHIELDS CLOSED, PLOT #168, ATTACH POINT #3, DISCHARGE #44

ж 0

DATE: 05/18/90

TIME: 11: 11: 41

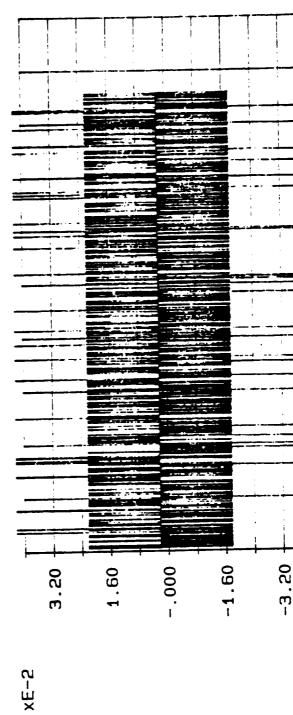
11: 11: 41.96

datap FILE: C:\HCI\H_CHAN3.044

MAX CURRENT = 4.227E-2

OPEN CIREVIT

ACTION INTEGRAL = 1.125E-6



SAMA

OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #167), EMI SHIELDS CLOSED, PLOT #169, ATTACH POINT #3, DISCHARGE #44

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4200

3000

1800

600.

TIME (USEC)

COMPOSITE CURRENT BANK: HIGH CURRENT

05/18/90 DATE:

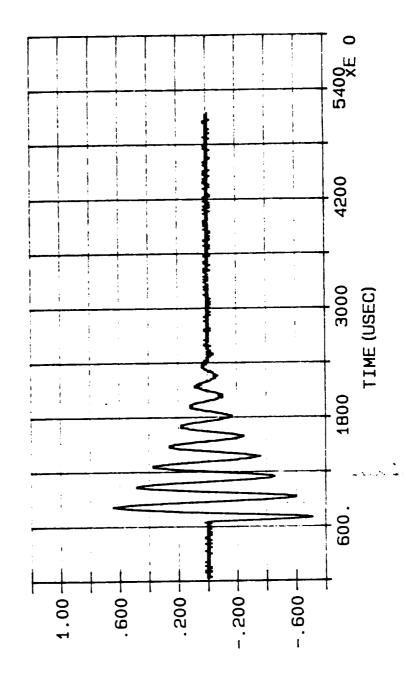
TIME:

11: 54: 47.52

C:\HCI\H_CHAN1.045 MAX CURRENT = datap FILE:

-7.098E4

1.149E6 U ACTION INTEGRAL



SAMA

INJECTION CURRENT WAVEFORM, PLOT #170, ATTACH POINT #3, DISCHARGE #45

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05/18/90 DATE:

TIME:

12: 04: 44.07

C:\HCI\H_CHAN2.045

datap FILE:

9.352E0

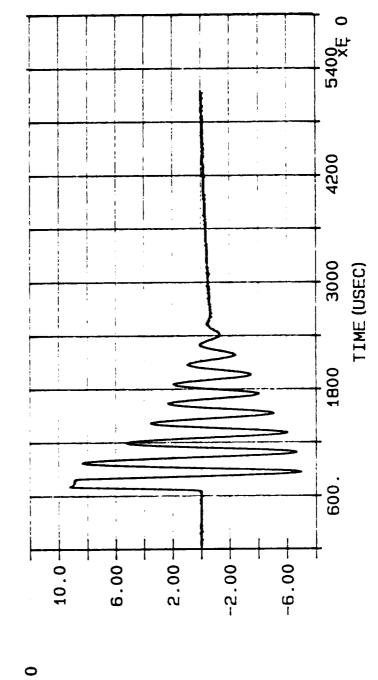
MAX CURRENT =

SHORT CIRCUIT

U

2.695E-2

ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #170), EMI SHIELDS CLOSED, PLOT #171, ATTACH POINT #3, DISCHARGE #45

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05/18/90 DATE:

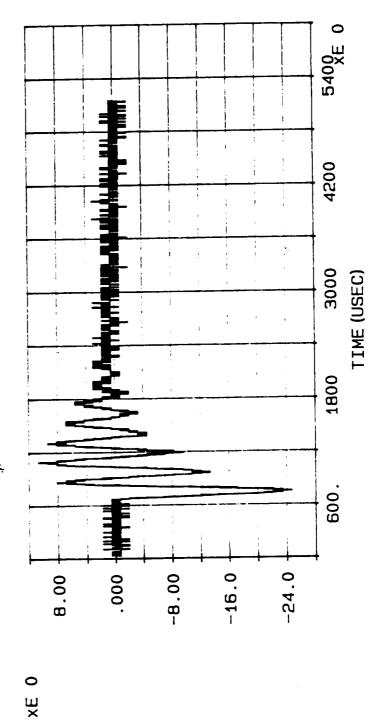
12: 04: 44.07 TIME:

C:\HCI\H_CHAN3.045 datap FILE:

7.224E-2 -2.466E1 MAX CURRENT =

SHORT CIRCUIT

ACTION INTEGRAL =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #170), EMI SHIELDS CLOSED, PLOT #172, ATTACH POINT #3, DISCHARGE #45

COMPOSITE CURRENT BANK: HIGH CURRENT

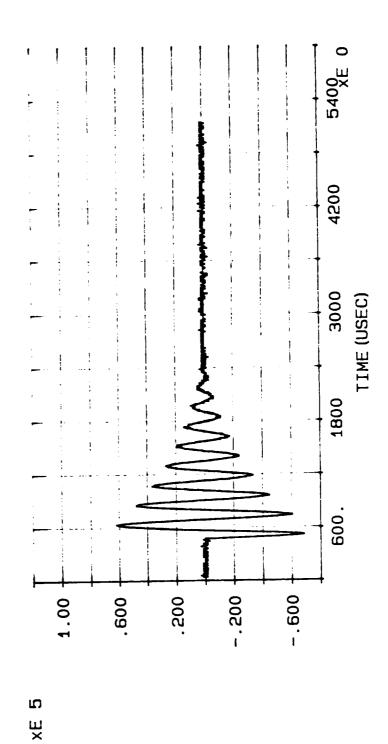
DATE: 05/18/90

TIME: 15: 16: 13.71

datap FILE: C:\HCI\H_CHAN1.046

MAX CURRENT = -6.850E4

ACTION INTEGRAL = 1.085E6



SGMA

INJECTION CURRENT WAVEFORM, PLOT #173, ATTACH POINT #3, DISCHARGE #46

05/18/90

15: 16: 13.71 DATE: TIME: C:\HCI\H_CHAN2.046

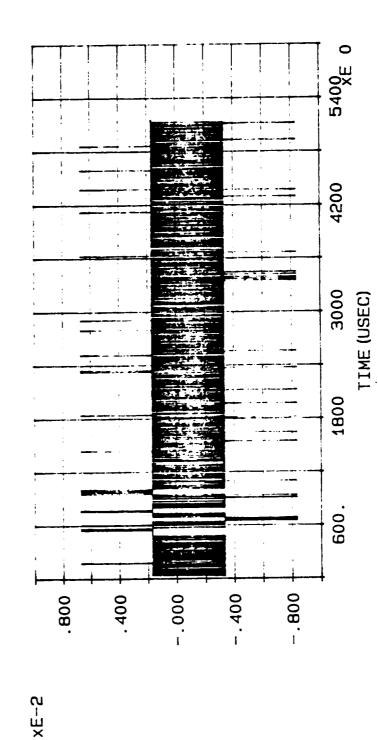
datap FILE:

1.176E-2

MAX CURRENT =

4.038E-8 ACTION INTEGRAL

OPEN CIRCUIT



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #173), EMI SHIELDS CLOSED, PLOT #174, ATTACH POINT #3, DISCHARGE #46

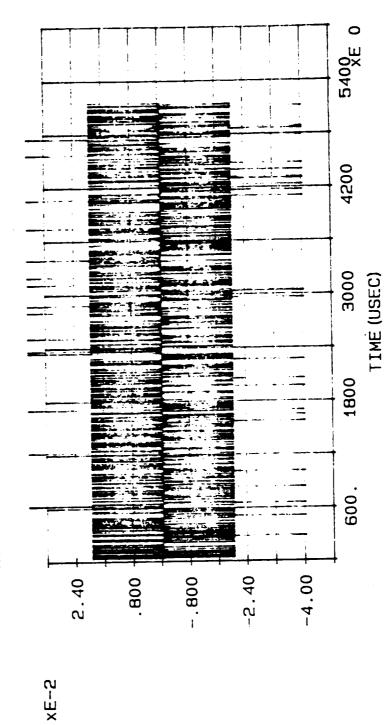
DATE: 05/18/90

TIME: 15: 16: 13.71

datap FILE: C:\HCI\H_CHAN3.046

MAX CURRENT = -6.040E-2

ACTION INTEGRAL = 1.075E-6



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #173), EMI SHIELDS CLOSED, PLOT #175, ATTACH POINT #3, DISCHARGE #46

COMPOSITE CURRENT BANK: HIGH CURRENT

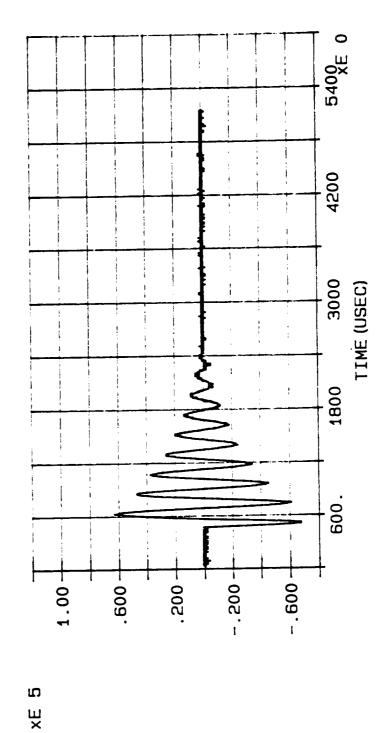
05/18/90 DATE:

TIME:

15: 58: 08.86

C:\HCI\H_CHAN1.047 datap FILE:

-6.910E4 MAX CURRENT = 1.116E6 ACTION INTEGRAL =



INJECTION CURRENT WAVEFORM, PLOT #176, ATTACH POINT #3, DISCHARGE #47

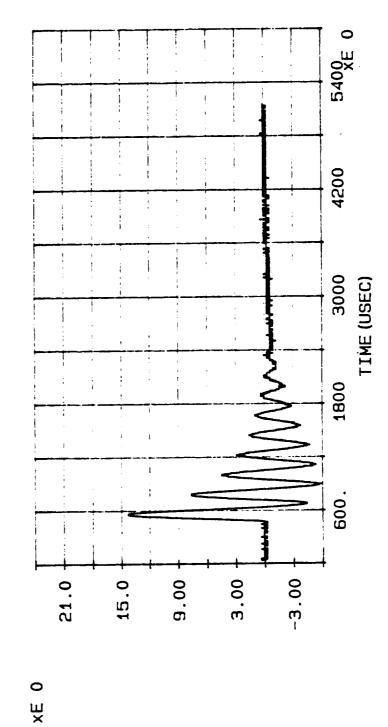
DATE: 05/18/90

TIME: 15: 58: 08.86

datap FILE: C:\HCI\H_CHAN2.047

MAX CURRENT = 1.466E1

ACTION INTEGRAL = 2.735E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #176), EMI SHIELDS CLOSED, PLOT #177, ATTACH POINT #3, DISCHARGE #47

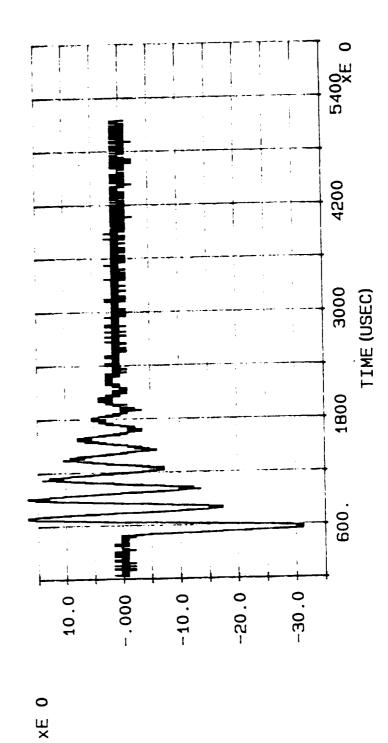
DATE: 05/18/90

TIME: 15: 58: 08.86

datap FILE: C:\HCI\H_CHAN3.047

MAX CURRENT = -3.371E1

ACTION INTEGRAL = 1.522E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #176), EMI SHIELDS CLOSED, PLOT #178, ATTACH POINT #3, DISCHARGE #47

COMPOSITE CURRENT BANK: HIGH CURRENT

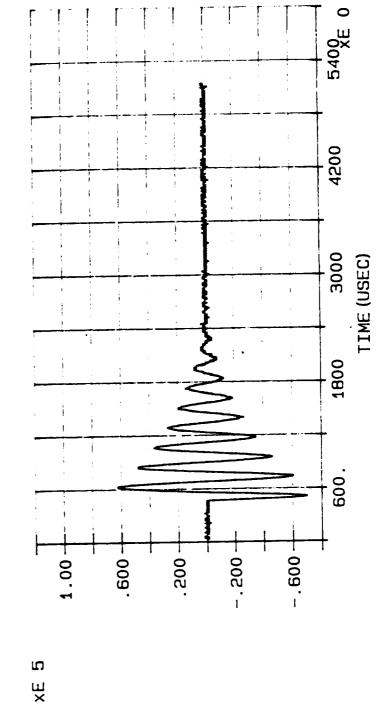
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TIME: 16: 30: 12.02

datap FILE: C:\HCI\H_CHAN1.048

MAX CURRENT = -6.972E4

ACTION INTEGRAL = 1.148E6



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INJECTION CURRENT WAVEFORM, PLOT #179, ATTACH POINT #3, DISCHARGE #48

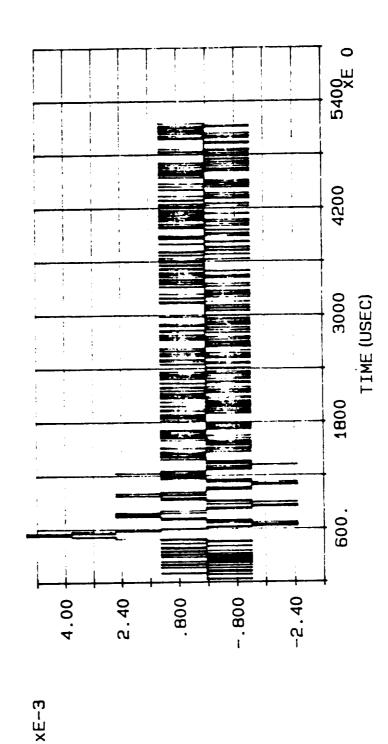
DATE: 05/18/90

TIME: 16: 30: 12.02

datap FILE: C:\HCI\H_CHAN2.048

MAX CURRENT = 6.360E-3

ACTION INTEGRAL = 4.455E-9



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #179), EMI SHIELDS CLOSED, PLOT #180, ATTACH POINT #3, DISCHARGE #48

05/18/90 DATE:

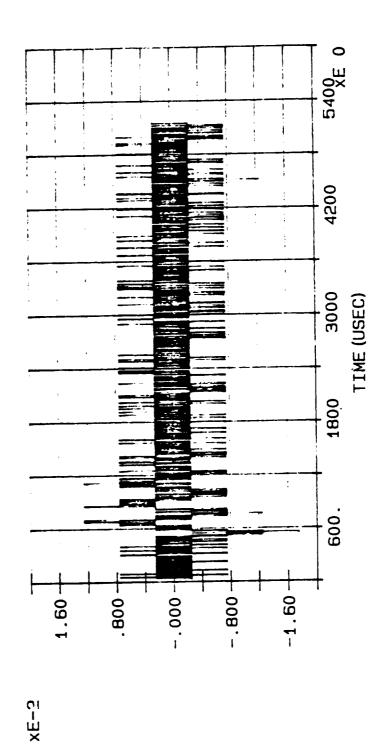
16: 44: 45.23 TIME:

C:\HCI\H_CHAN3.048 datap FILE:

-1.755E-2 MAX CURRENT

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7.409E-8 u ACTION INTEGRAL



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #179), EMI SHIELDS CLOSED, PLOT #181, ATTACH POINT #3, DISCHARGE #48

COMPOSITE CURRENT BANK: HIGH CURRENT

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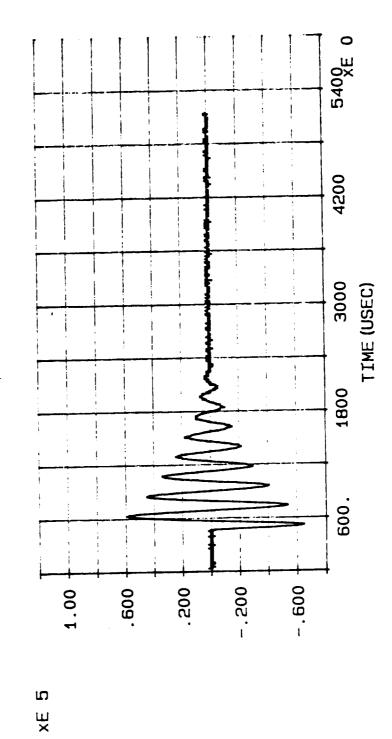
TIME:

17: 15: 20.73

C:\HCI\H_CHAN1.049 datap FILE:

-6.635E4 MAX CURRENT =

9.503E5 U ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #182, ATTACH POINT #1, DISCHARGE #49

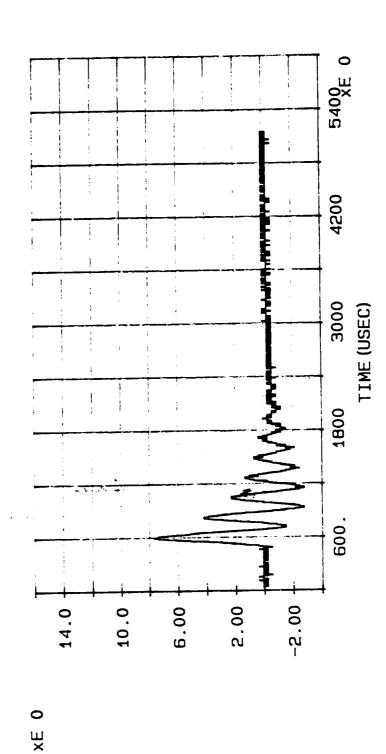
05/18/90

17: 15: 20.73 DATE: TIME:

C:\HCI\H_CHAN2.049 datap FILE:

7.698E0 MAX CURRENT

7.691E-3 Ц ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (FLOT #182), EMI SHIELDS CLOSED, PLOT #183, ATTACH POINT #1, DISCHARGE #49

05/18/90

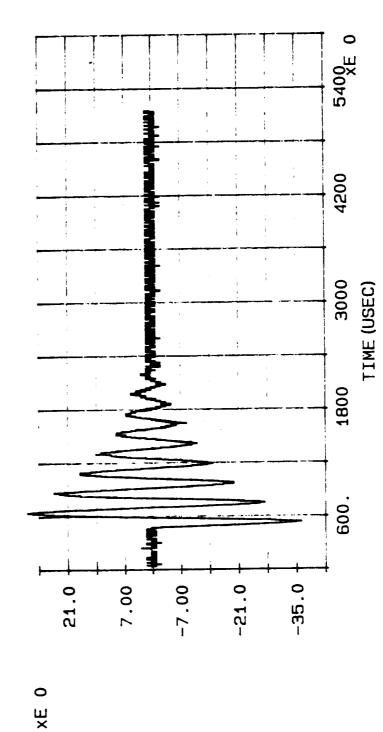
DATE:

TIME: 17: 15: 20.73

datap FILE: C:\HCI\H_CHAN3.049

MAX CURRENT = -3.616E1

ACTION INTEGRAL = 2.545E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #182), EMI SHIELDS CLOSED, PLOT #184, ATTACH POINT #1, DISCHARGE #49

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/18/90

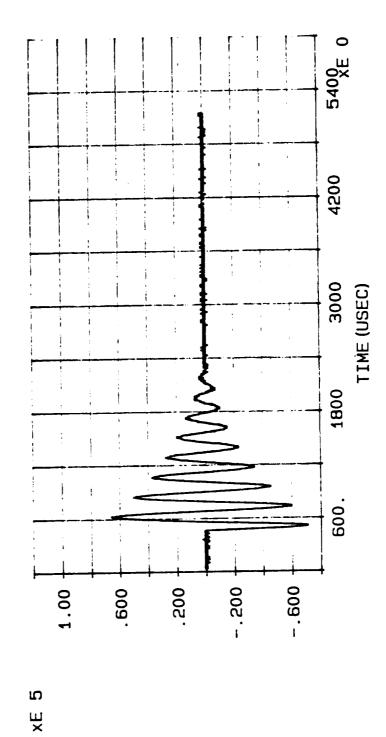
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TIME: 17: 39: 02.58

datap FILE: C:\HCI\H_CHAN1.050

MAX CURRENT = -7.248E4

ACTION INTEGRAL = 1.161E6



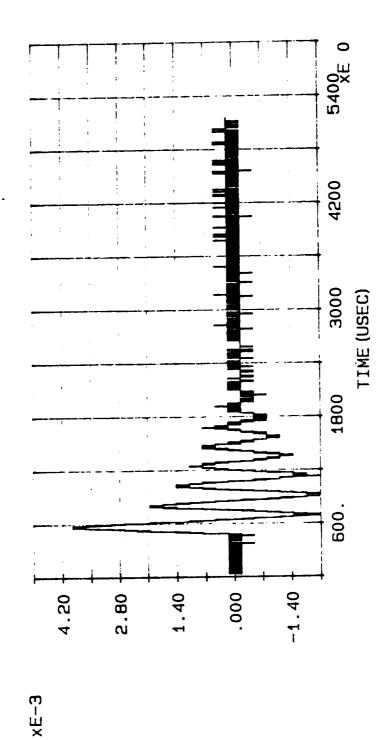
INJECTION CURRENT WAVEFORM, PLOT #185, ATTACH POINT #1, DISCHARGE #50

05/18/90

17: 39: 02.58 DATE: TIME: C:\HCI\H_CHAN2.050 datap FILE:

3.954E-3 MAX CURRENT =

2.358E-9 ACTION INTEGRAL



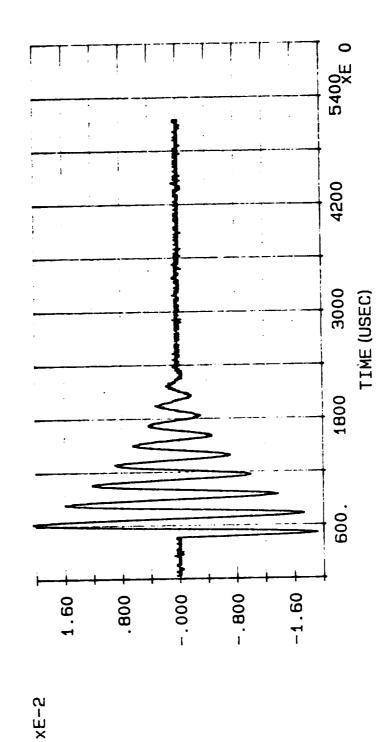
OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #185), EMI SHIELDS CLOSED, PLOT #186, ATTACH POINT #1, DISCHARGE #50

05/18/90

17: 39: 02.58 DATE: TIME: C:\HCI\H_CHAN3.050 datap FILE:

2.077E-2 MAX CURRENT =

1.071E-7 H ACTION INTEGRAL



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #185), EMI SHIELDS CLOSED, PLOT #187, ATTACH POINT #1, DISCHARGE #50

COMPOSITE CURRENT BANK: HIGH CURRENT

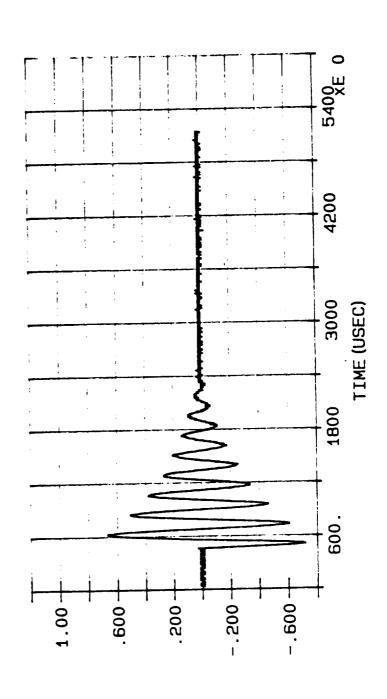
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TIME:

17: 58: 19.81

C:\HCI\H_CHAN1.051 -7.188E4 MAX CURRENT = datap FILE:

1.212E6 ACTION INTEGRAL =



SGMA

INJECTION CURRENT WAVEFORM, PLOT #188, ATTACH POINT #1, DISCHARGE #51

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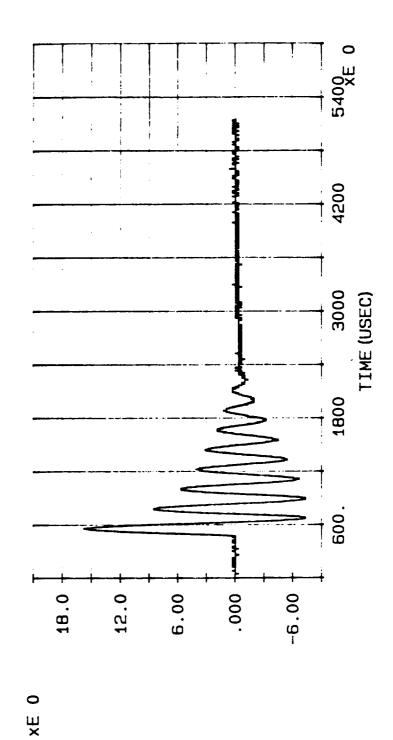
DATE: TIME:

17: 58: 19.81

C:\HCI\H_CHAN2.051 datap FILE:

1.580E1 MAX CURRENT =

3.757E-2 ACTION INTEGRAL

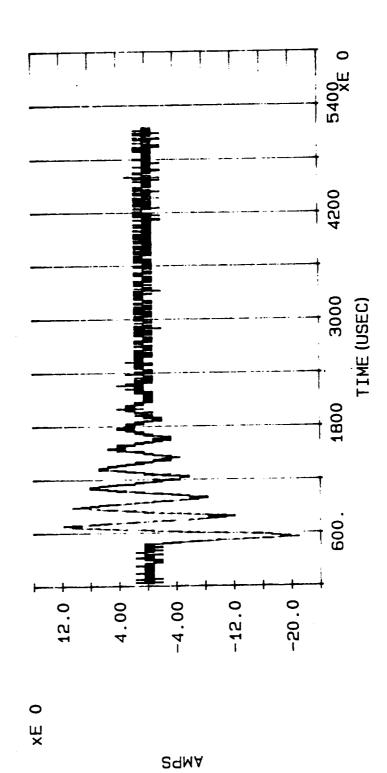


SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #188). EMI SHIELDS CLOSED, PLOT #189, ATTACH POINT #1, DISCHARGE #51

05/18/90

17: 58: 19.81 DATE: TIME: C:\HCI\H_CHAN3.051 datap FILE:

-2.228E1 MAX CURRENT = 5.660E-2 il ACTION INTEGRAL



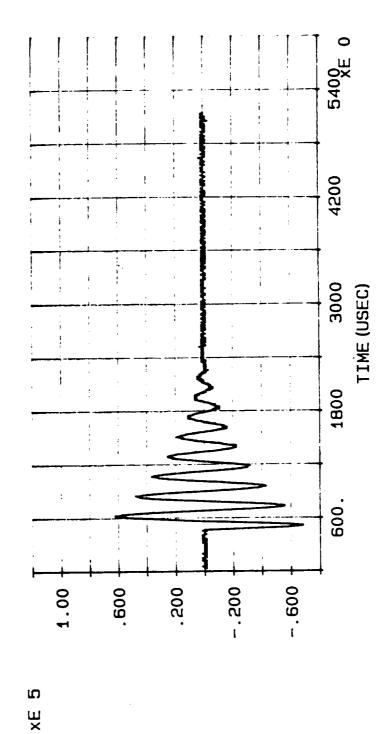
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #188), EMI SHIELDS CLOSED, PLOT #190, ATTACH POINT #1, DISCHARGE #51

COMPOSITE CURRENT BANK: HIGH CURRENT

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TIME: 18: 10: 02.58

ACTION INTEGRAL = 1.035E6



INJECTION CURRENT WAVEFORM, PLOT #191, ATTACH POINT #1, DISCHARGE #52

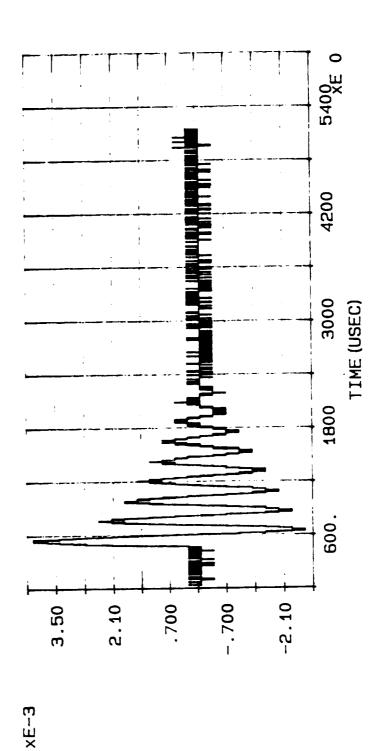
DATE: 05/18/90

TIME: 18: 10: 02.58

datap FILE: C:\HCI\H_CHAN2.052

MAX CURRENT = 4.364E-3

ACTION INTEGRAL = 2.999E-9

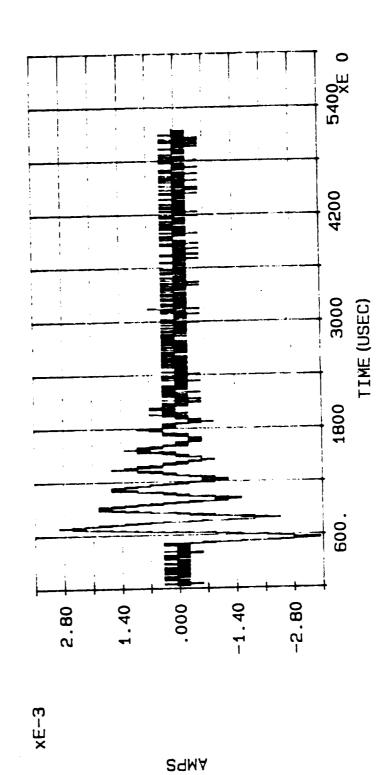


OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #191), EMI SHIELDS CLOSED, PLOT #192, ATTACH POINT #1, DISCHARGE #52

05/18/90

18: 10: 02.58 DATE: TIME: C:\HCI\H_CHAN3.052 datap FILE:

-3.428E-3 MAX CURRENT 2.025E-9 11 ACTION INTEGRAL



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #191), EMI SHIELDS CLOSED, PLOT #193, ATTACH POINT #1, DISCHARGE #52

COMPOSITE CURRENT BANK: HIGH CURRENT

05/19/90 DATE:

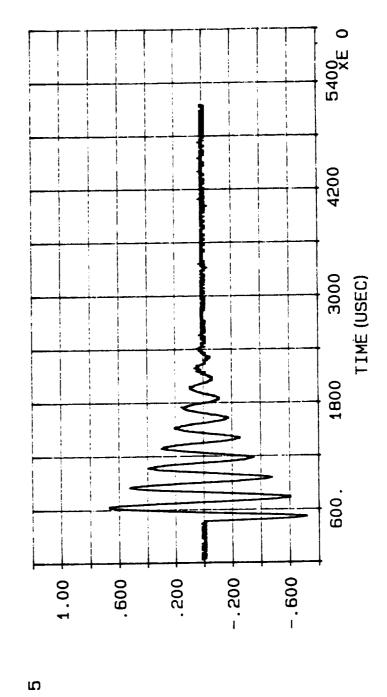
TIME:

09: 20: 43.34

C:\HCI\H_CHAN1.053 datap FILE:

-7.166E4 MAX CURRENT =

1.256E6 ACTION INTEGRAL =



SAMA

INJECTION CURRENT WAVEFORM, PLOT #194, ATTACH POINT #1, DISCHARGE #53

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DATE: ,05/19/90

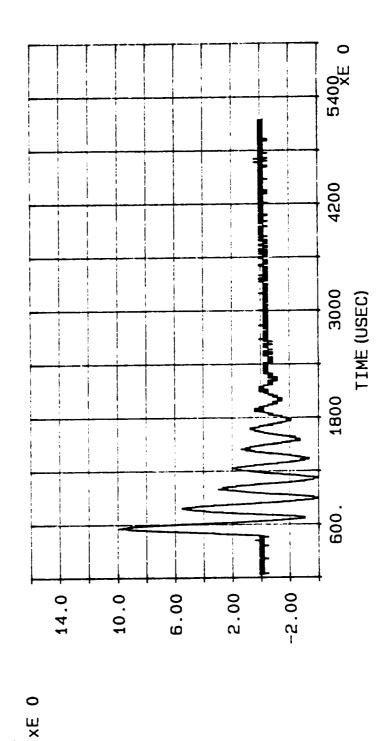
TIME: 09: 20:

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datap FILE: C:\HCI\H_CHAN2.053

MAX CURRENT = 9.964E0

ACTION INFEGRAL = 1.297E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #194), EMI SHIELDS CLOSED, PLOT #195, ATTACH POINT #1, DISCHARGE #53

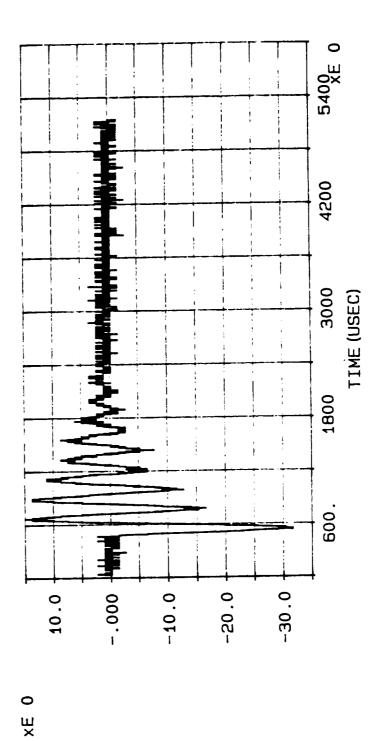
DATE: 05/19/90

TIME: 09: 20: 43.34

datap FILE: C:\HCI\H_CHAN3.053

MAX CURRENT = -3.170E1

ACTION INTEGRAL = 1.223E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLCT #194), EMI SHIELDS CLOSED, PLOT #196, ATTACH POINT #1, DISCHARGE #53

COMPOSITE CURRENT BANK: HIGH CURRENT

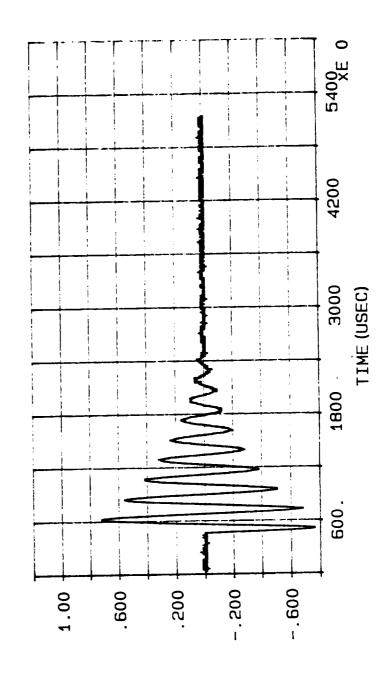
DATE: 05/19/90

TIME: 09: 34: 04.16

datap FILE: C:\HCI\H_CHAN1.054

MAX CURRENT = -7.768E4

ACTION INTEGRAL = 1.456E6



SGMA

INJECTION CURRENT WAVEFORM, PLOT #197, ATTACH POINT #1, DISCHARGE #54

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05/19/90

TIME: DATE:

09: 34: 04.16

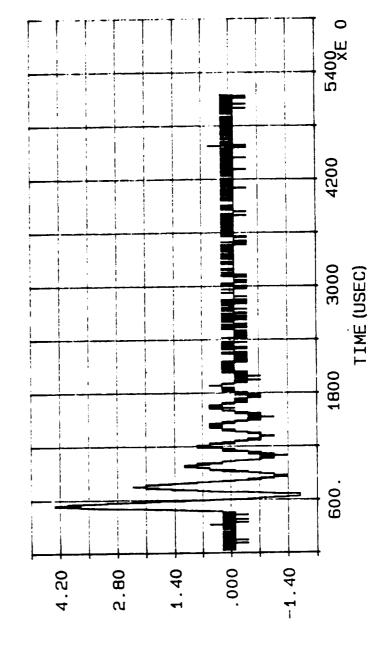
datap FILE:

C:\HCI\H_CHAN2.054

4.334E-3 li MAX CURRENT

II ACTION INTEGRAL

1.992E-9



SAMA

OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #197), EMI SHIELDS CLOSED, PLOT #198, ATTACH POINT #1, DISCHARGE #54

xE-3

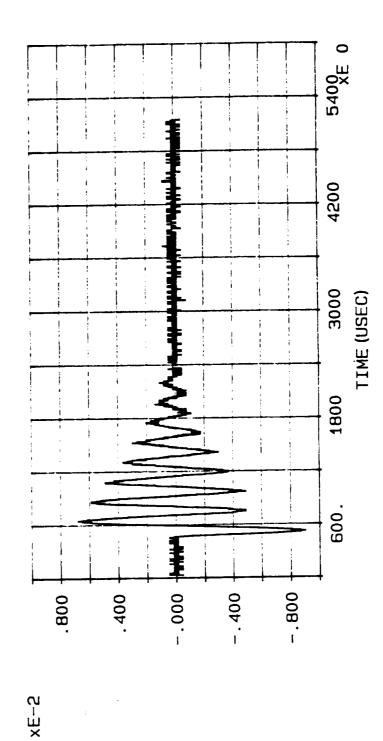
DATE: 05/19/90

TIME: 09: 34: 04.16

datap FILE: C:\HCI\H_CHAN3.054

MAX CURRENT = -9.017E-3

ACTION INTEGRAL = 1.475E-8



OPEN CIRCUIT VOLTAGE INDUCED INTO CABLE #8 BY INJECTION CURRENT WAVEFORM (PLOT #197), EMI SHIELDS CLOSED, PLOT #199, ATTACH POINT #1, DISCHARGE #54

COMPOSITE CURRENT BANK: HIGH CURRENT

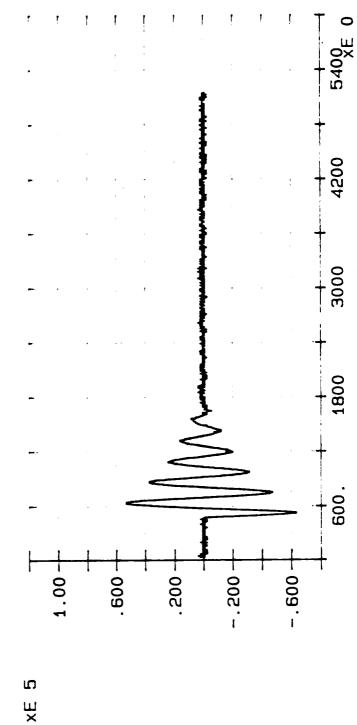
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TIME: 10: 02: 09

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datap FILE: C:\HCI\H_CHAN1.055

MAX CURRENT = -6.452E4
ACTION INTEGRAL = 6.848E5



SAMA

INJECTION CURRENT WAVEFORM, PLOT #200, ATTACH POINT #2, DISCHARGE #55

TIME (USEC)

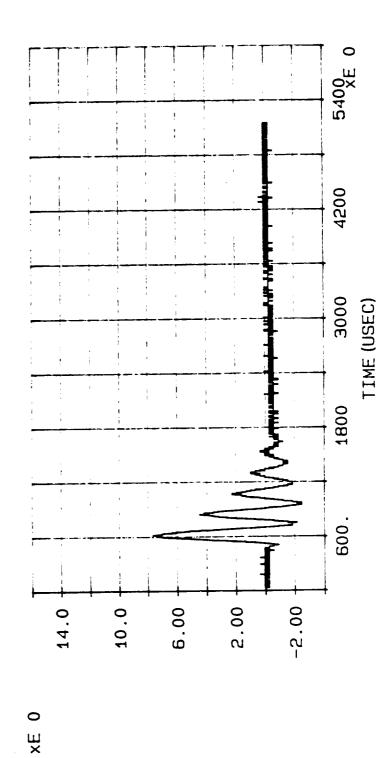
DATE: 05/19/90

TIME: 10: 02: 09.93

datap FILE: C:\HCI\H_CHAN2.055

MAX CURRENT = 7.679E0

ACTION INTEGRAL = 7.261E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #200), EMI SHIELDS CLOSED PLOT #201, ATTACH POINT #2, DISCHARGE #55

05/19/90

TIME: DATE:

10: 02: 09.93

C:\HCI\H_CHAN3.055

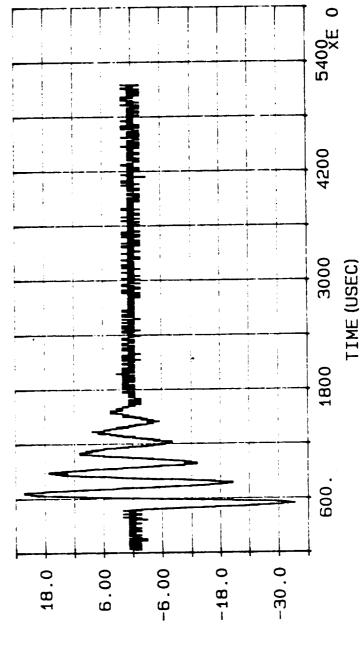
datap FILE:

-3.324E1 MAX CURRENT = 1.495E-1

11

ACTION INTEGRAL





SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #200), EMI SHIELDS CLOSED, PLOT #202, ATTACH POINT #2, DISCHARGE #55

xE 0

COMPOSITE CURRENT BANK: HIGH CURRENT

05/19/90 DATE:

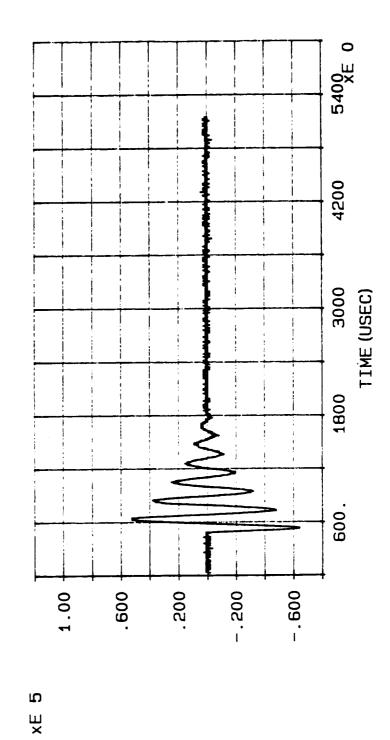
TIME:

10: 40: 31.64

C:\HCI\H_CHAN1.056 datap FILE:

-6.387E4 MAX CURRENT =

6.586E5 II ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #203, ATTACH POINT #2, DISCHARGE #56

05/19/90 DATE:

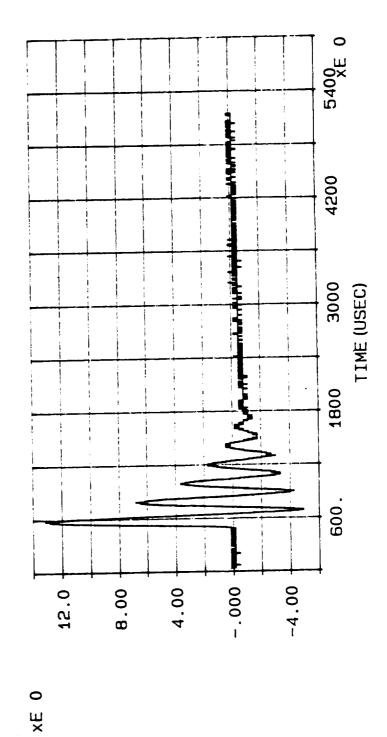
TIME:

10: 40: 31.64

C:\HCI\H_CHAN2.056 MAX CURRENT = datap FILE:

1.317E1

1.890E-2 ACTION INTEGRAL =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #203), EMI SHIELDS CLOSED, PLOT #204, ATTACH POINT #2, DISCHARGE #56

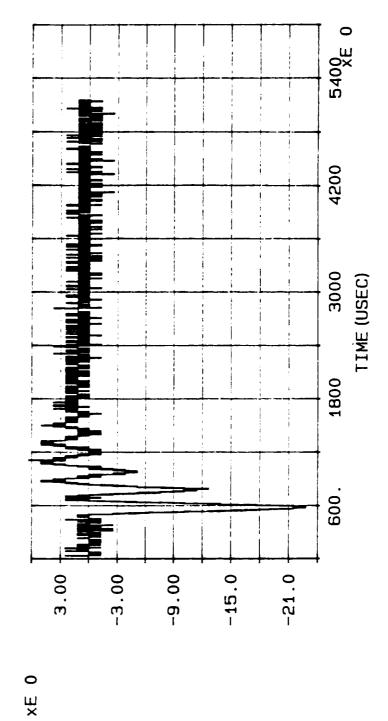
05/19/90

10: 40: 31.64 DATE: TIME:

C:\HCI\H_CHAN3.056 datap FILE:

-2.274E1 MAX CURRENT =

5.342E-2 u ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #203), EMI SHIELDS CLOSED, PLOT #205, ATTACH POINT #2, DISCHARGE #56

COMPOSITE CURRENT BANK: HIGH CURRENT

05/21/90 DATE:

TIME:

10: 12: 12.90

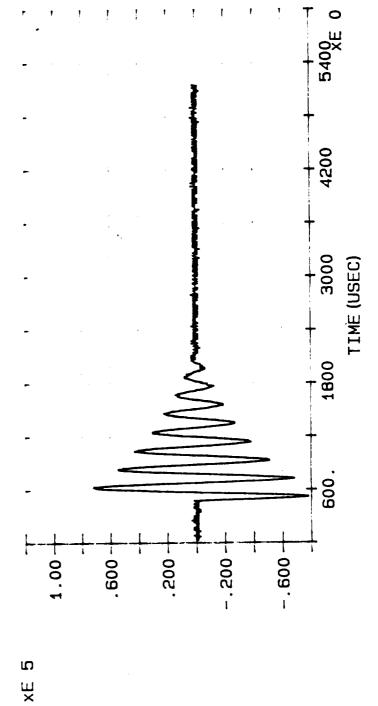
MAX CURRENT =

datap FILE:

-7.769E4

C:\HCI\H_CHAN1.057

1.332E6 ACTION INTEGRAL =



INJECTION CURRENT WAVEFORM, PLOT #206, ATTACH POINT #4, DISCHARGE #57

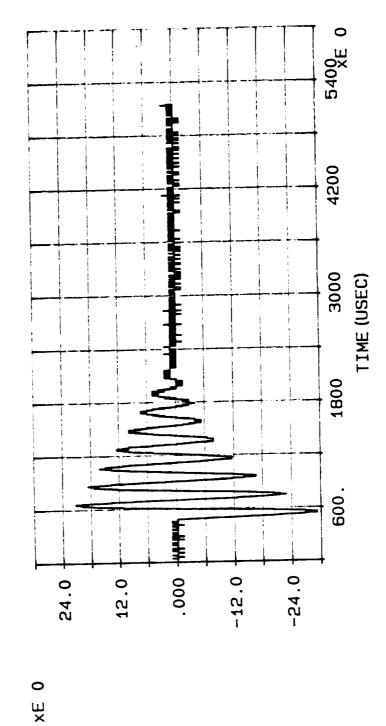
05/21/90

DATE: TIME:

10: 12: 12.90

C:\HCI\H_CHAN2.057 datap FILE:

-2.915E1 MAX CURRENT 1.703E-1 ll ACTION INTEGRAL



**29MA** 

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #206), EMI SHIELDS CLOSED, PLOT #207, ATTACH POINT #4, DISCHARGE #57

COMPOSITE CURRENT BANK: HIGH CURRENT

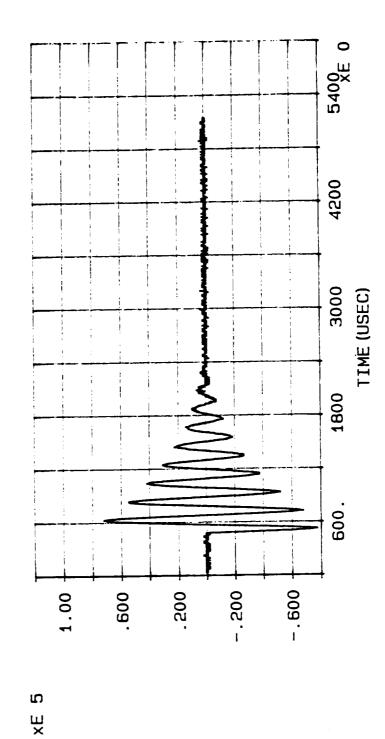
DATE: 05/21/90

TIME: 10: 36: 01.

E: 10: 36: 01.18 ap FILE: C:\HCI\H_CHAN1.058

datap FILE: C:\HCI\H_CH
MAX CURRENT = -7.731E4

ACTION INTEGRAL = 1.325E6



INJECTION CURRENT WAVEFORM, PLOT #208, ATTACH POINT #4, DISCHARGE #58

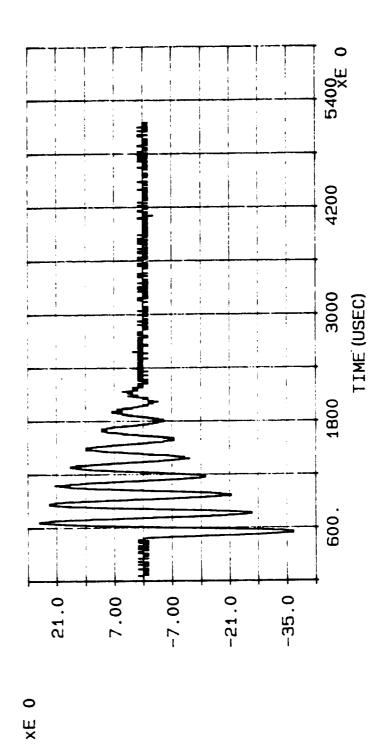
05/21/90

10: 36: 01.18 DATE: TIME:

C:\HCI\H_CHAN2.058 datap FILE:

-3.776E1 MAX CURRENT

2.828E-1 ij ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #208), EMI SHIELDS CLOSED, PLOT #209, ATTACH POINT #4, DISCHARGE #58

COMPOSITE CURRENT BANK: HIGH CURRENT

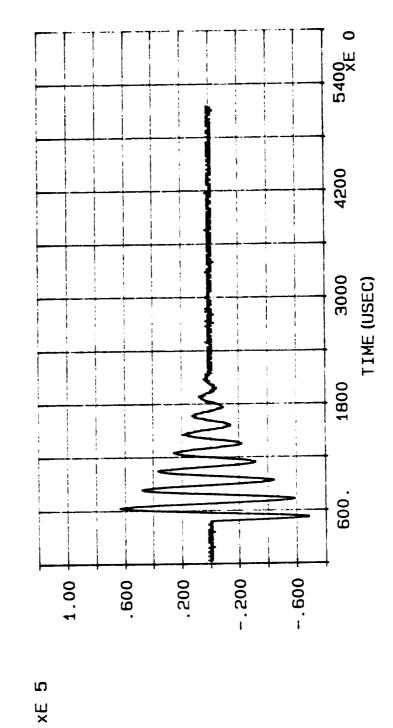
05/21/90 DATE:

TIME:

C:\HCI\H_CHAN1.059 10: 49: 34.08 datap FILE:

-6.983E4

1.020E6 ACTION INTEGRAL MAX CURRENT =



INJECTION CURRENT WAVEFORM, PLOT 210, ATTACH POINT #4, DISCHARGE #59

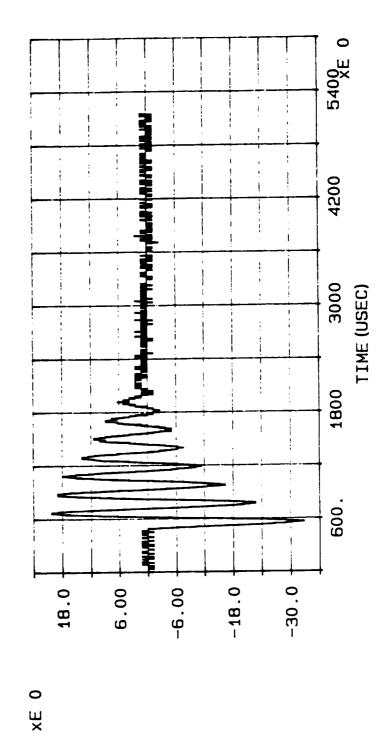
DATE: 05/21/90

TIME: 10: 49: 34.08

datap FILE: C:\HCI\H_CHAN2.059

MAX CURRENT = -3.400E1

ACTION INTEGRAL = 1.913E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #10 BY INJECTION CURRENT WAVEFORM (PLOT #210), EMI SHIELDS CLOSED, PLOT #211, ATTACH POINT #4, DISCHARGE #59

COMPOSITE CURRENT BANK: HIGH CURRENT

05/21/90 DATE:

15: 30: 09.57

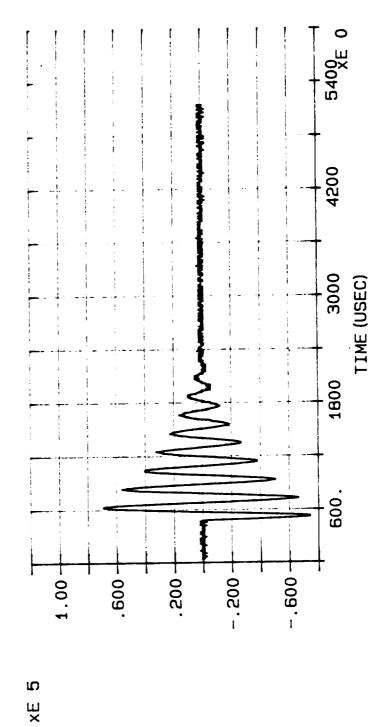
TIME:

C:\HCI\H_CHAN1.060

datap FILE:

-7.572E4 MAX CURRENT =

1.302E6 Į, ACTION INTEGRAL



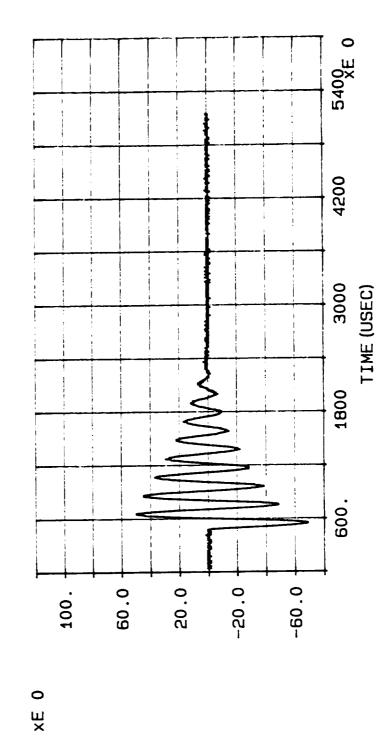
INJECTION CURRENT WAVEFORM, PLOT #212, ATTACH POINT #4, DISCHARGE #60

05/21/90

15: 30: 09.57 TIME: DATE:

C:\HCI\H_CHAN2.060 datap FILE:

-6.851E1 MAX CURRENT 9.643E-1 u ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #212), EMI SHIELDS OPEN, PLOT #213, ATTACH POINT #4, DISCHARGE #60

05/21/90

DATE: TIME:

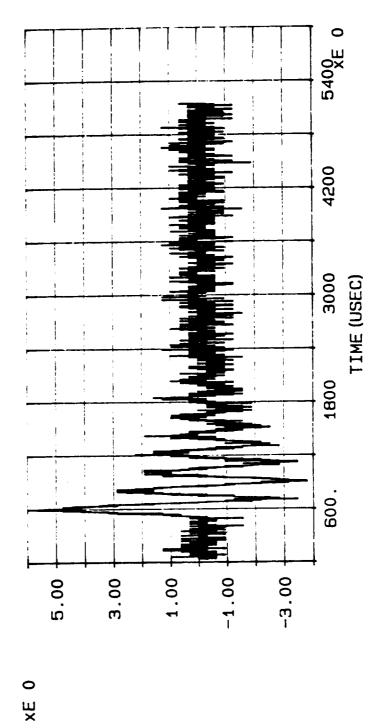
15: 30: 09.57

C:\HCI\H_CHAN3.060 datap FILE:

MAX CURRENT

6.044E0

5.369E-3 ľ ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #212), EMI SHIELDS OPEN, PLOT #214, ATTACH POINT #4, DISCHARGE #60

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE:

05/21/90

TIME:

16: 02: 06.25

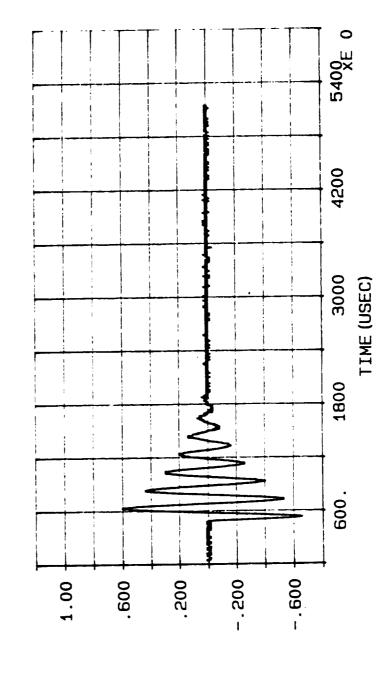
datap FILE:

C:\HCI\H_CHAN1.061

MAX CURRENT =

-6.561E4

7.864E5 ACTION INTEGRAL



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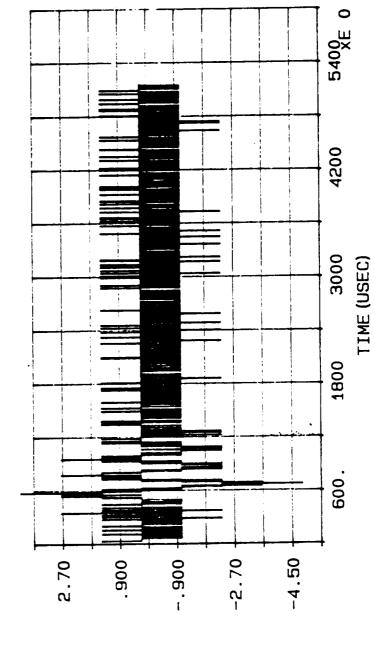
INJECTION CURRENT WAVEFORM, PLOT #215, ATTACH POINT #5, DISCHARGE #61

XE 55

05/21/90

16: 02: 06.25 DATE: TIME: C:\HCI\H_CHAN2.061 datap FILE:

-4.821E0 MAX CURRENT = 4.308E-3 11 ACTION INTEGRAL



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SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #215), EMI SHIELDS OPEN, PLOT #216, ATTACH POINT #5, DISCHARGE #61

D-217

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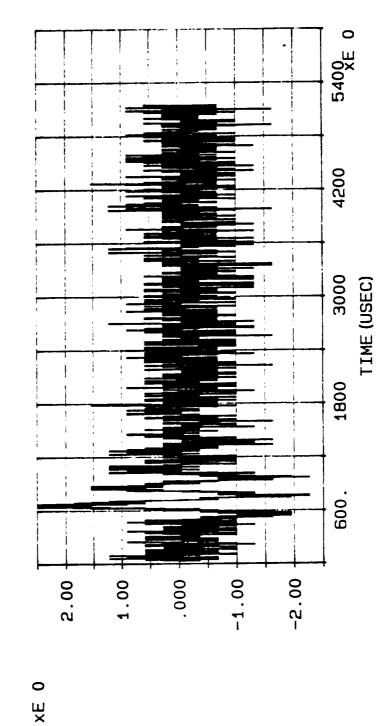
DATE: 05/21/90

TIME: 16: 02: 06.25

datap FILE: C:\HCI\H_CHAN3.061

MAX CURRENT = -2.895E0

ACTION INTEGRAL = 1.978E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #215), EMI SHIELDS OPEN, PLOT #217, ATTACH POINT #5, DISCHARGE #61

COMPOSITE CURRENT BANK: HIGH CURRENT

05/21/90 DATE:

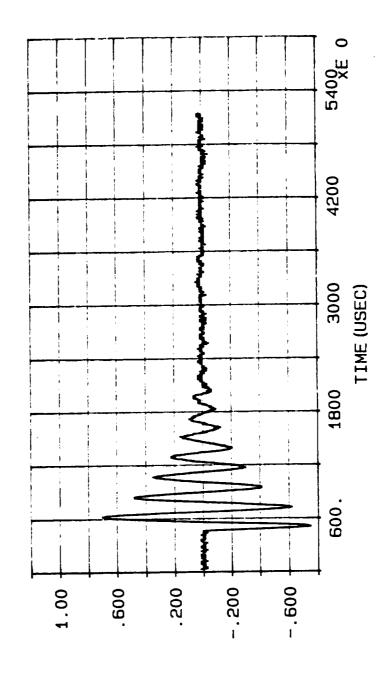
TIME:

16: 53: 00.93

C:\HCI\H_CHAN1.062 datap FILE:

-7.612E4 MAX CURRENT =

1.143E6 ACTION INTEGRAL =



SAMA

INJECTION CURRENT WAVEFORM, PLOT #218, ATTACH POINT #1, DISCHARGE #62

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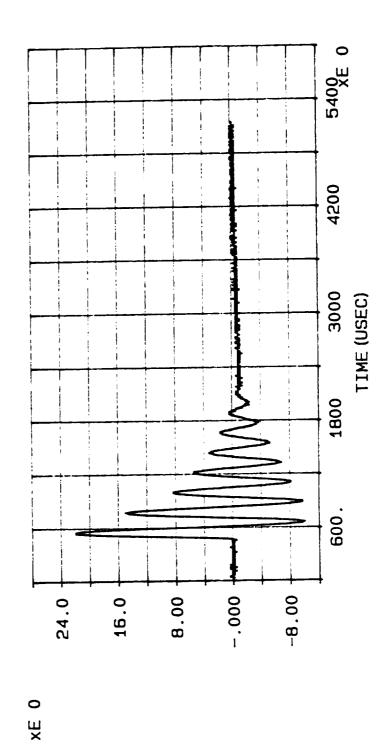
DATE: 05/21/90

TIME: 16: 53: 00.93

datap FILE: C:\HCI\H_CHAN2.062

MAX CURRENT = 2.232E1

ACTION INTEGRAL = 7.387E-2



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #218), EMI SHIELDS OPEN, PLOT #219, ATTACH POINT #1, DISCHARGE #62

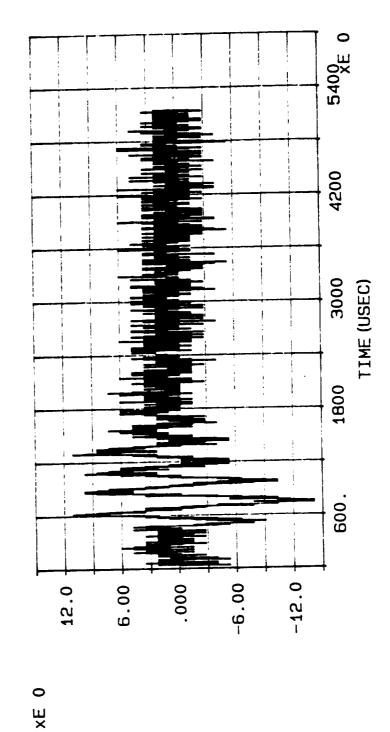
D-220

05/21/90 DATE: 16: 53: 00.93 TIME: C:\HCI\H_CHAN3.062 datap FILE:

-1.413E1

MAX CURRENT =

5.300E-2 11 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #218), EMI SHIELDS OPEN, PLOT #220, ATTACH POINT #1, DISCHARGE #62

COMPOSITE CURRENT LANK: HIGH CURRENT

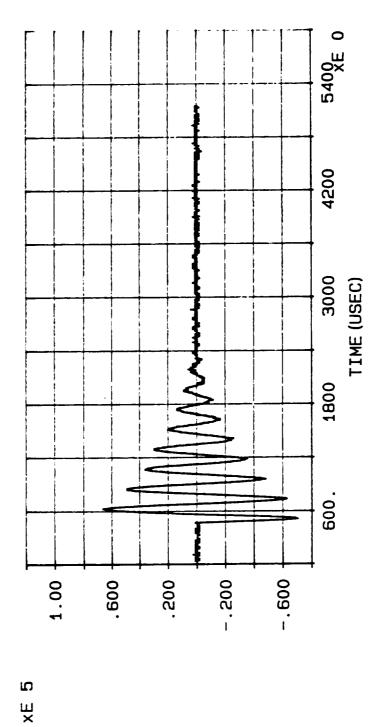
DATE: 05/21/90

TIME: 17: 06: 24.98

datap FILE: C:\HCI\H_CHAN1.063

MAX CURRENT = -7.047E4

ACTION INTEGRAL = 1.178E6



INJECTION CURRENT WAVEFORM, PLOT #221, ATTACH POINT #3, DISCHARGE #63

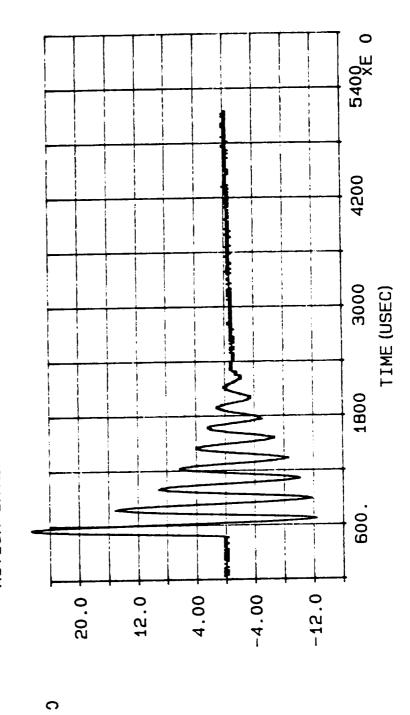
DATE: 05/21/90

TIME: 17: 06: 24.98

datap FILE: C:\HCI\H_CHAN2.063

MAX CURRENT = 2.692E1

ACTION INTEGRAL = 1.015E-1



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #221), EMI SHIELDS OPEN, PLOT #222, ATTACH POINT #3, DISCHARGE #63

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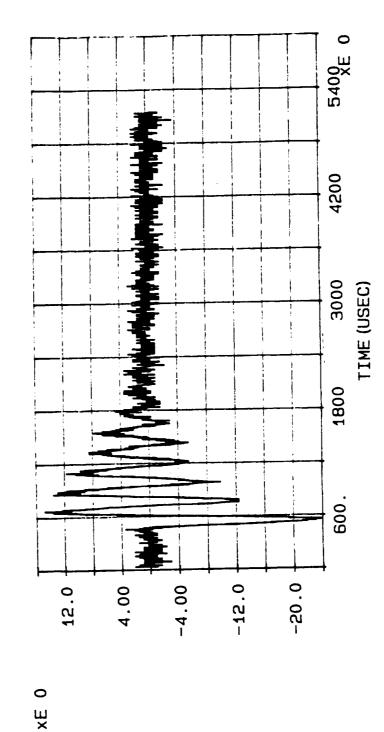
05/21/90

TIME: DATE:

17:06:24.98

C:\HCI\H_CHAN3.063 datap FILE:

8.442E-2 -2.436E1 ACTION INTEGRAL MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #221), EMI SHIELDS OPEN, PLOT #223, ATTACH POINT #3, DISCHARGE #63

COMPOSITE CURRENT BANK: HIGH CURRENT



11: 24: 31.47 TIME:

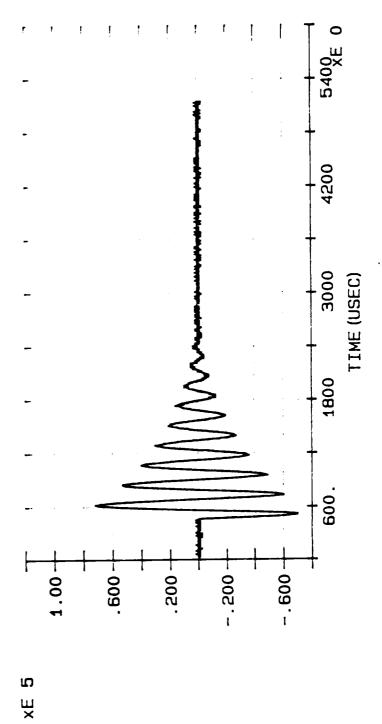
datap FILE:

C:\HCI\H_CHAN1.064

MAX CURRENT =

7.394E4

1.321E6 11 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM. PLOT #224, ATTACH POINT #3, DISCHARGE #64

05/22/90

DATE: TIME:

11: 24: 31.47

C:\HCI\H_CHAN2.064 datap FILE:

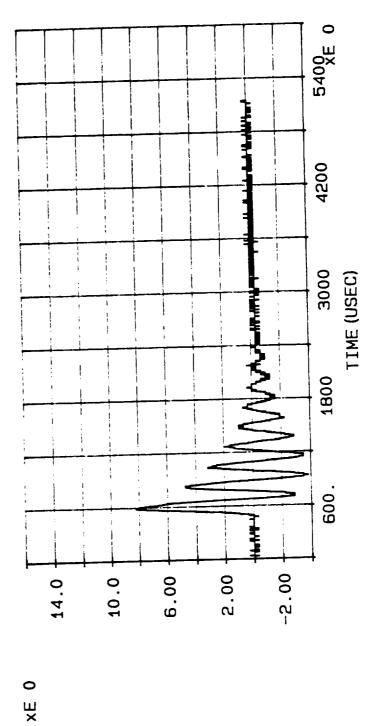
B.252E0

MAX CURRENT =

11 ACTION INTEGRAL

1.031E-2





SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #224), EMI SHIELDS CLOSED. PLOT #225, ATTACH POINT #3, DISCHARGE #64

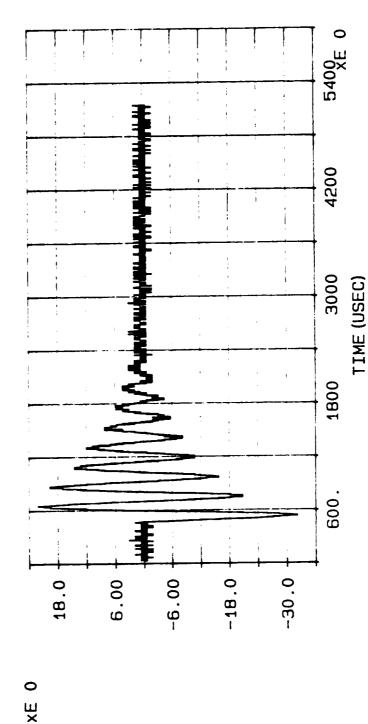
05/22/90

DATE: TIME:

11: 24: 31.47

C:\HCI\H_CHAN3.064 datap FILE:

-3.336E1 MAX CURRENT = 1.768E-1 ACTION INTEGRAL



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SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #224), EMI SHIELDS CLOSED, PLOT #226, ATTACH POINT #3, DISCHARGE #64

D-227

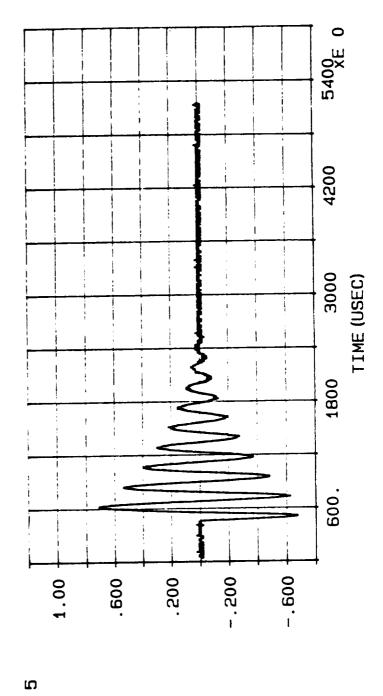
COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/22/90

TIME: 11: 46: 49.01

datap FILE: c:\HCI\H_CHAN1.065
MAX CURRENT = 7.153E4

ACTION INTEGRAL = 1.323E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #227, ATTACH POINT #3, DISCHARGE #65

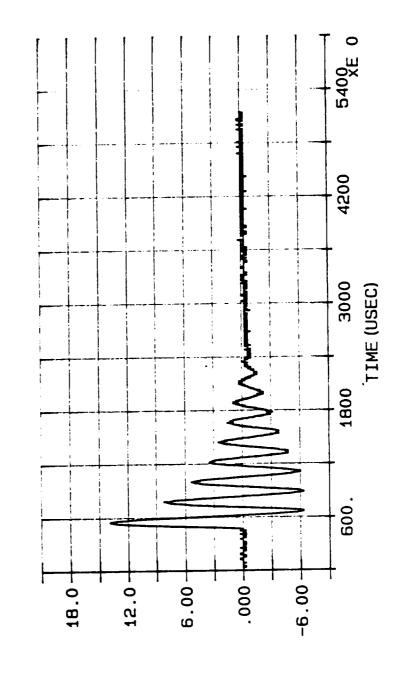
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TIME: 11: 46: 49.01

datap FILE: C:\HCI\H_CHAN2.065

MAX CURRENT = 1.398E1

ACTION INTEGRAL = 2.988E-2



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #227), EMI SHIELDS CLOSED, PLOT #228, ATTACH POINT #3, DISCHARGE #65

xE 0

DATE: 05/22/90

TIME: 11: 46: 49.01

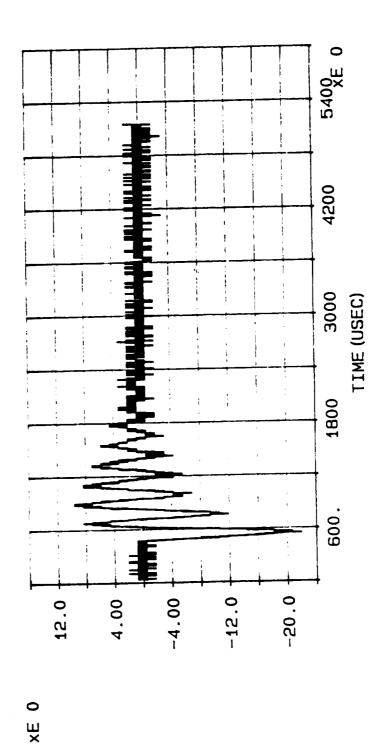
datap FILE: C:\HCI\H_CHAN3.065

MAX CURRENT = -2.191E1

5.594E-2

II

ACTION INTEGRAL



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #227), EMI SHIELDS CLOSED, PLOT #229, ATTACH POINT #3, DISCHARGE #65

COMPOSITE CURRENT BANK: HIGH CURRENT

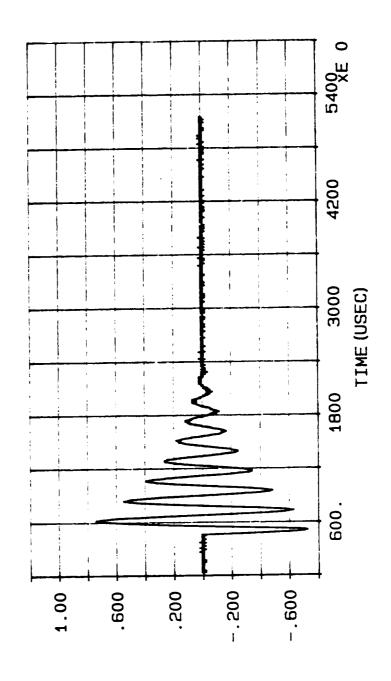
05/22/90 DATE:

TIME:

11: 56: 11.45

C:\HCI\H_CHAN1.066 datap FILE:

7.450E4 MAX CURRENT = 1.312E6 ACTION INTEGRAL



SAMA

INJECTION CURRENT WAVEFORM, PLOT #230, ATTACH POINT #1, DISCHARGE #66

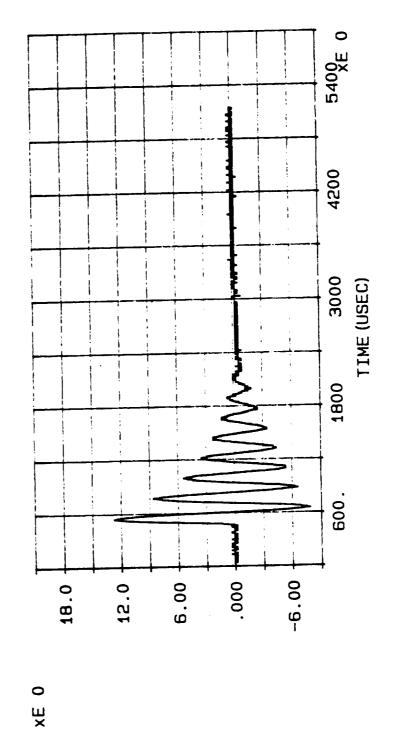
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05/22/90

11: 56: 11.45 DATE: TIME:  $C: \HCI\H_CHAN2.066$ datap FILE:

1.276E1 MAX CURRENT =

2.674E-2 II ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #230), EMI SHIELDS CLOSED, PLOT #231, ATTACH POINT #1, DISCHARGE #66

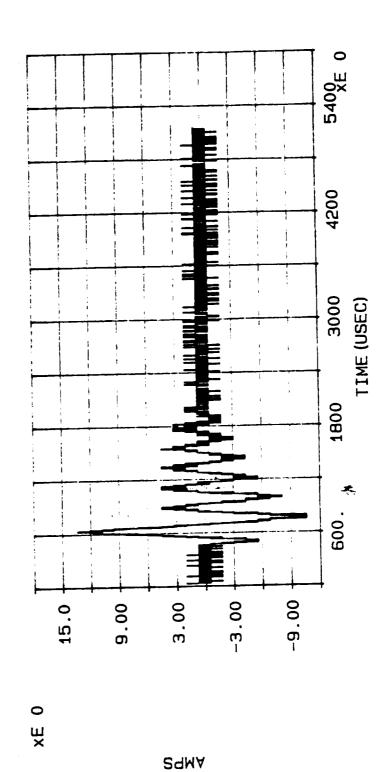
DATE: 05/22/90

TIME: 11:56:11.45

datap FILE: C:\HCI\H_CHAN3.066

MAX CURRENT = 1.339E1

ACTION INTEGRAL = 2.796E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #230), EMI SHIELDS CLOSED, PLOT #232, ATTACH POINT #1, DISCHARGE #66

COMPOSITE CURRENT BANK: HIGH CURRENT

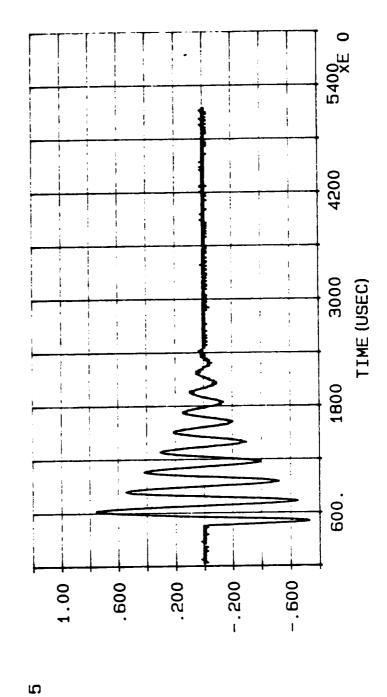
DATE: 05/22/90

TIME: 12: 08: 24.70

datap FILE: C:\HCI\H_CHAN1.067

MAX CURRENT = 7.571E4

ACTION INTEGRAL = 1.458E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #233, ATTACH POINT #1, DISCHARGE #67

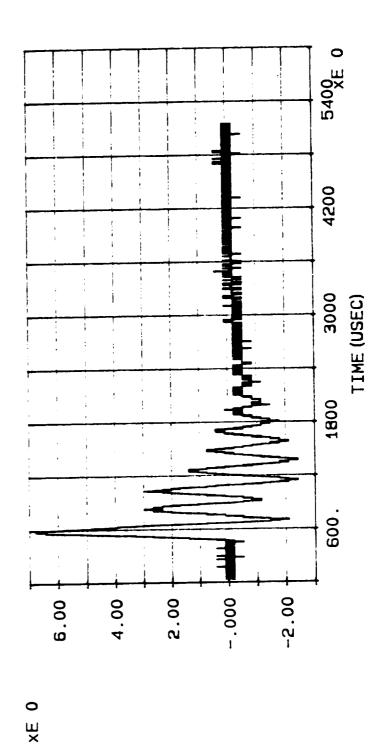
×

05/22/90 DATE:

12: 08: 24.70 TIME: C:\HCI\H_CHAN2.067

7.094E0 MAX CURRENT = datap FILE:

6.159E-3 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #233), EMI SHIELDS CLOSED, PLOT #234, ATTACH POINT #1, DISCHARGE #67

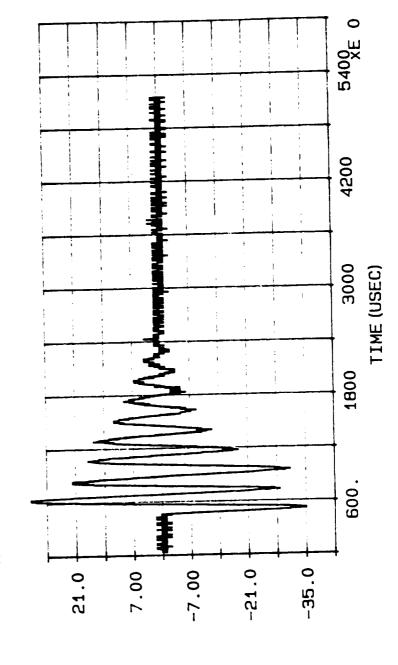
05/25/90

12: 08: 24.70 TIME: DATE:

C:\HCI\H_CHAN3.067

-3.501E1 MAX CURRENT = datap FILE:

3.017E-1 ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #233), EMI SHIELDS CLOSED, PLOT #235, ATTACH POINT #1, DISCHARGE #67

xE 0

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/22/90

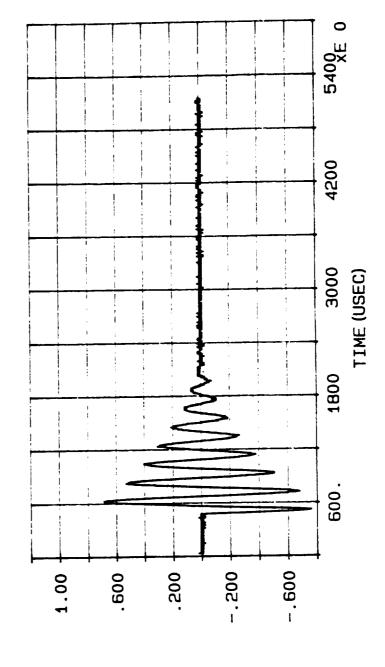
TIME: 12: 48

12: 48: 37.69

datap FILE: C:\HCI\H_CHAN1.068

MAX CURRENT = -7.584E4

ACTION INTEGRAL = 1.246E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #236, ATTACH POINT #4, DISCHARGE #68

XE 5

DATE: 05/22/90

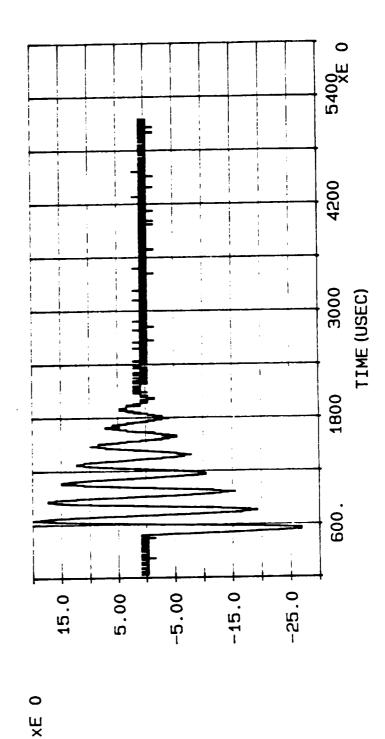
TIME: 12: 48:

12: 48: 37.69

datap FILE: C:\HCI\H_CHAN2.068

MAX CURRENT = -2.808E1





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SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #236), EMI SHIELDS CLOSED, PLOT #237, ATTACH POINT #4, DISCHARGE #68

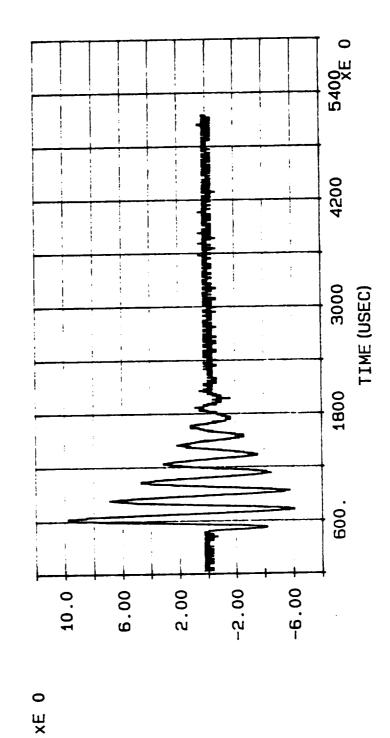
05/22/90

DATE: TIME:

12: 48: 37.69

C:\HCI\H_CHAN3.068 datap FILE:

9.795E0 MAX CURRENT 1.581E-2 I ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #236), EMI SHIELDS CLOSED, PLOT #238, ATTACH POINT #4, DISCHARGE #68

COMPOSITE CURRENT BANK: HIGH CURRENT

05/22/90 DATE:

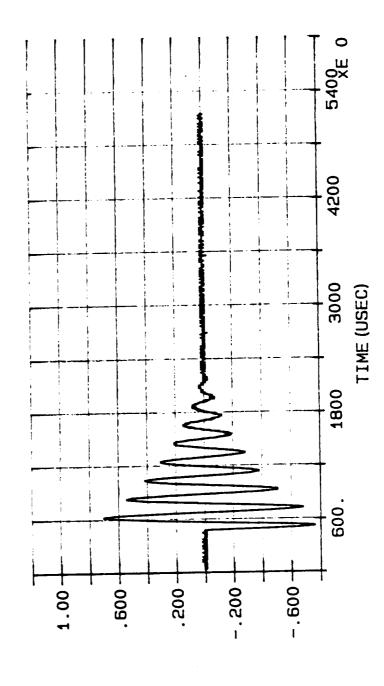
TIME:

13: 02: 16.08

C:\HCI\H_CHAN1.069 datap FILE:

-7.752E4 MAX CURRENT =

1.338E6 ACTION INTEGRAL



SGMA

INJECTION CURRENT WAVEFORM, PLOT #239, ATTACH POINT #4, DISCHARGE #69

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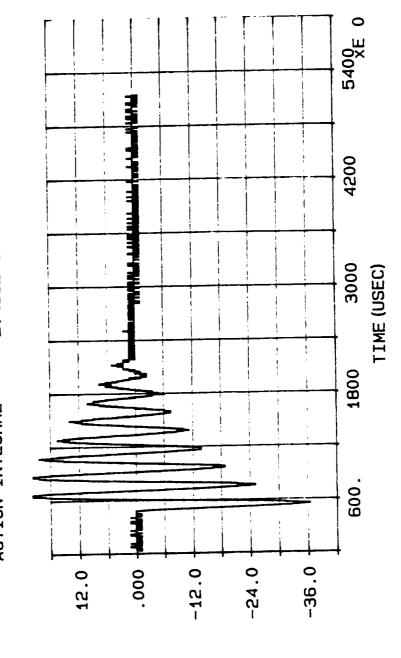
DATE: 05/22/90

TIME: 13: 02: 16.08

datap FILE: C:\HCI\H_CHAN2.069

MAX CURRENT = -3.640E1

ACTION INTEGRAL = 2.463E-1



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #239), EMI SHIELDS CLOSED, PLOT #240, ATTACH POINT #4, DISCHARGE #69

xE 0

05/22/90 DATE:

TIME:

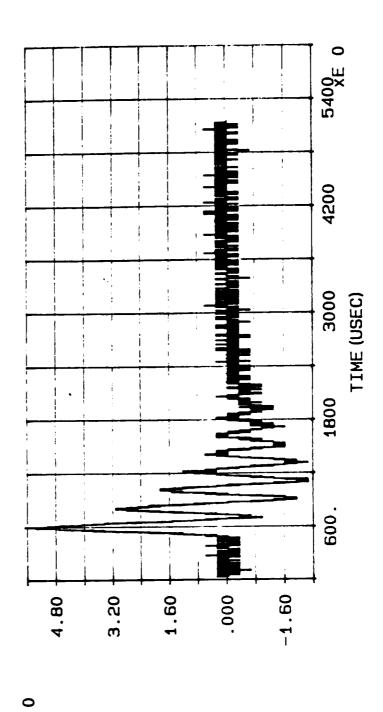
13: 02: 16.08

C:\HCI\H_CHAN3.069 datap FILE:

MAX CURRENT =

5.663E0

4.184E-3 ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #239), EMI SHIELDS CLOSED, PLOT #241, ATTACH POINT #4, DISCHARGE #69

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MARX MEASUREMENT: INPUT CURRENT

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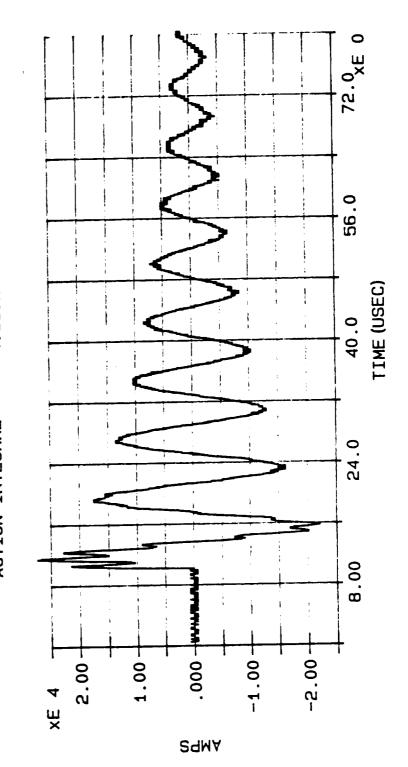
TIME: 17: 47: 09.17

:: 17:47:US.17 :: C:\CAT\DATA4\MI400.070

FILE:

MAX CURRENT = 2.738E4

ACTION INTEGRAL = 4.310E3



INJECTION CURRENT WAVEFORM, PLOT #242, ATTACH POINT #4, DISCHARGE #70

MARX di/dt

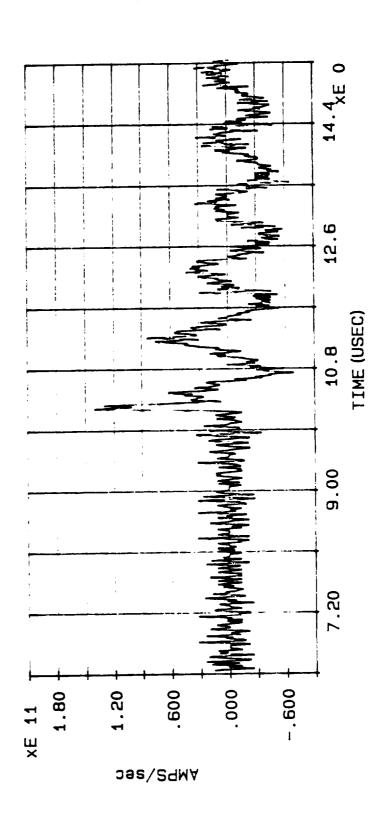
05/23/90 DATE:

TIME:

15: 21: 28.00

FILE

C:\CAT\DATA4\MI400.070 1.412E11 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #243, ATTACH POINT #4, DISCHARGE #70

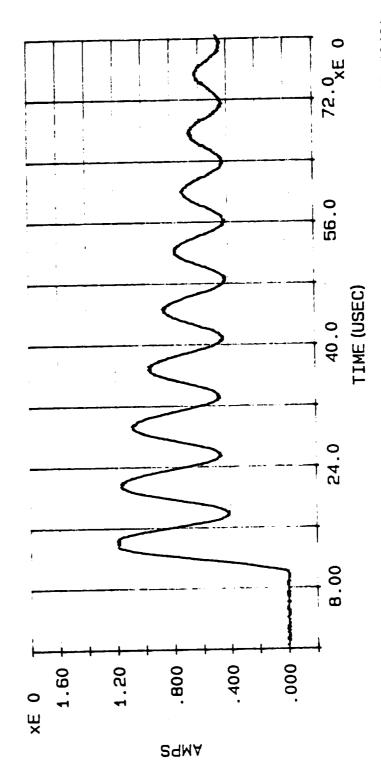
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/23/90

TIME: 15: 32: 20.24

FILE: C:\CAT\DATA4\MC411.070

MAX CURRENT = 1.203E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #243), PLOT #244, ATTACH POINT #4, DISCHARGE #70

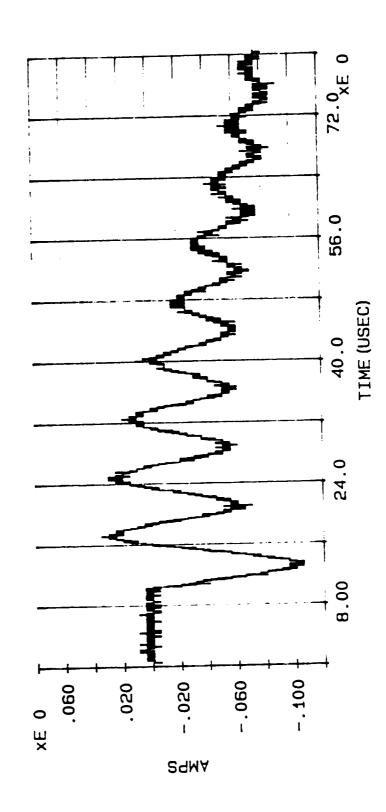
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 36: 29.10

FILE: C:\CAT\DATA4\MC407.070

MAX CURRENT = -1.110E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #243), PLOT #245, ATTACH POINT #4, DISCHARGE #70

MARX MEASUREMENT: INPUT CURRENT

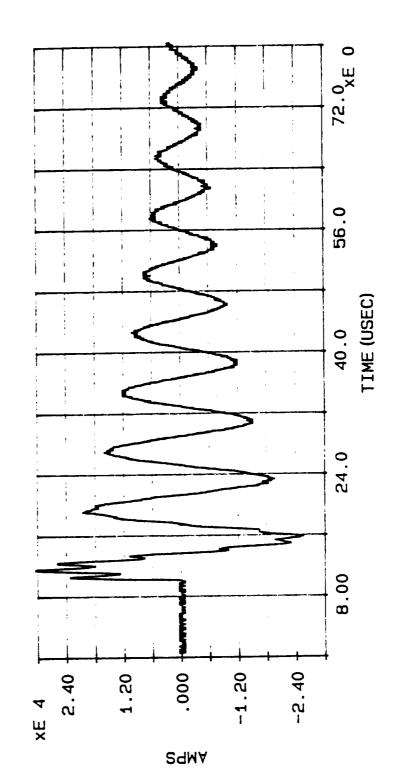
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17: 51: 26.60 TIME:

C:\CAT\DATA4\MI400.071 FILE:

3.10BE4 MAX CURRENT =

5.912E3 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #246, ATTACH POINT #4, DISCHARGE #71

MARX di/dt

05/23/90

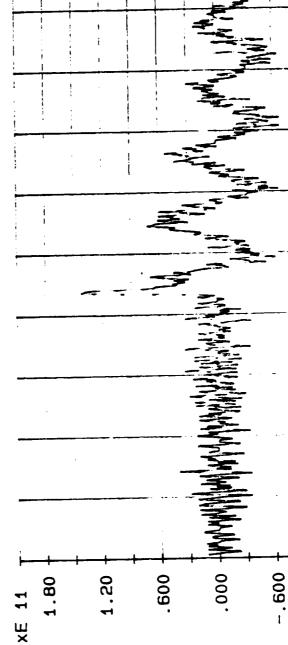
DATE: TIME:

15: 25: 01.77

C:\CAT\DATA4\MI400.071

MAX di/dt

1.425E11



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DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #247, ATTACH POINT #4, DISCHARGE #71

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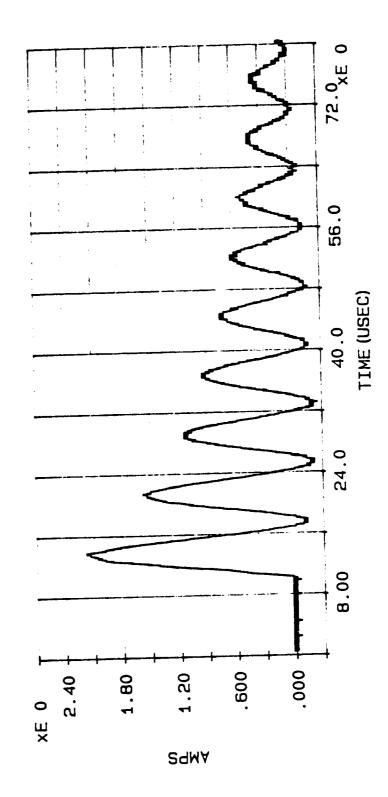
MARX MEASUREMENT: CABLE CURRENT

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DATE:	
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TIME: 15: 41: 00.16

FILE: C:\CAT\DATA4\MC412.071

MAX CURRENT = 2.182E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #246), PLOT #248, ATTACH POINT #4, DISCHARGE #71

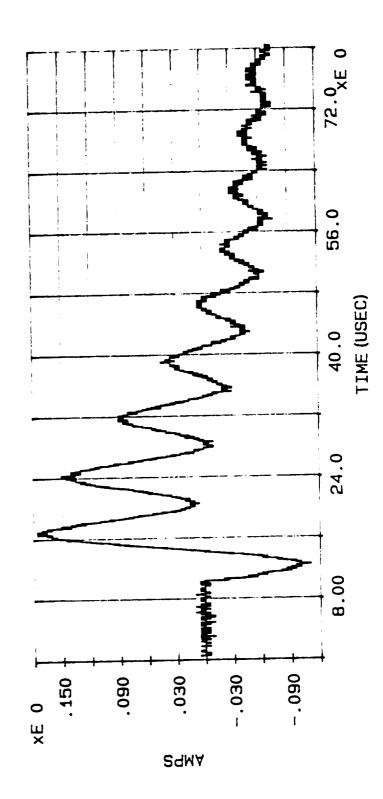
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 45: 22.87

FILE: C:\CAT\DATA4\MC406.071

MAX CURRENT = 1.763E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #246), PLOT #249, ATTACH POINT #4, DISCHARGE #71

MARX MEASUREMENT: INPUT CURRENT

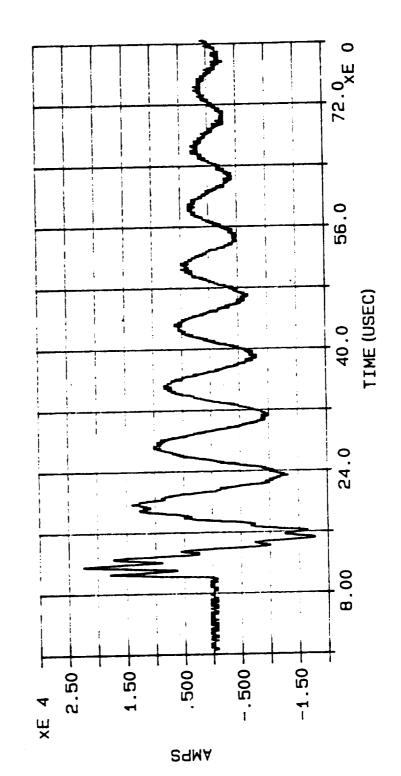
05/22/90	7. 57. 47
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TIME: 17: 57: 17.19

FILE: C:\CAT\DATA4\M1100.072

MAX CURRENT = 2.257E4

ACTION INTEGRAL = 2.563E3



INJECTION CURRENT WAVEFORM, PLOT #250, ATTACH POINT #1, DISCHARGE #72

MARX d1/dt

05/23/90 DATE:

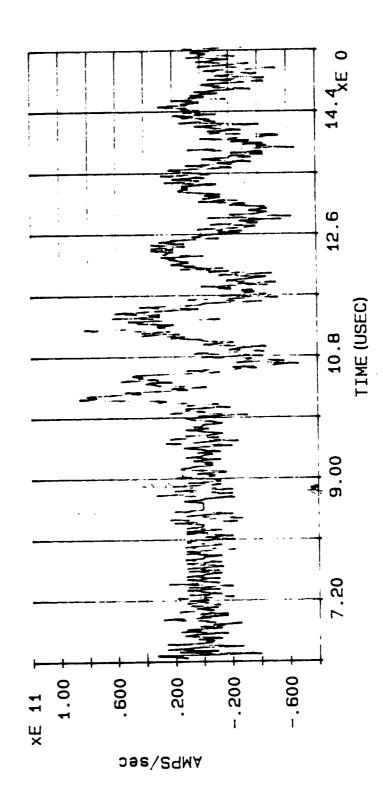
TIME:

15: 28: 09.39

C:\CAT\DATA4\MI100.072

FILE:

8.684E10 MAX di/dt



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #251, ATTACH POINT #1, DISCHARGE #72

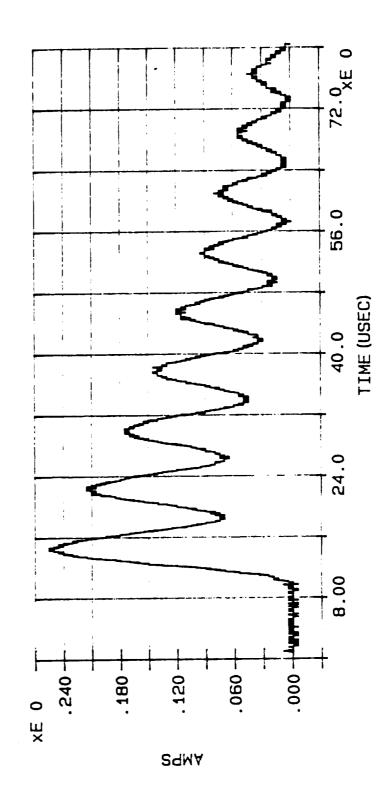
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 51: 02.20

: C:\CAT\DATA4\MC112.072

MAX CURRENT = 2.610E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #250), PLOT #252, ATTACH POINT #1, DISCHARGE #72

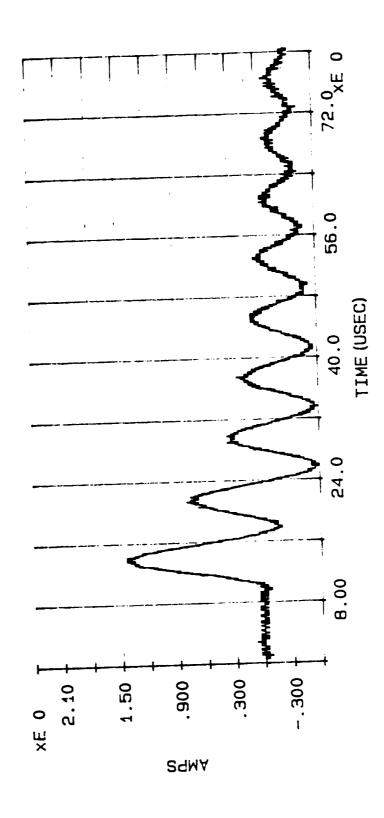
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/23/90

TIME: 15: 55: 13.92

FILE: C:\CAT\DATA4\MC106.072

MAX CURRENT = 1.442E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #250), PLOT #253, ATTACH POINT #1, DISCHARGE #72

MARX MEASUREMENT: INPUT CURRENT

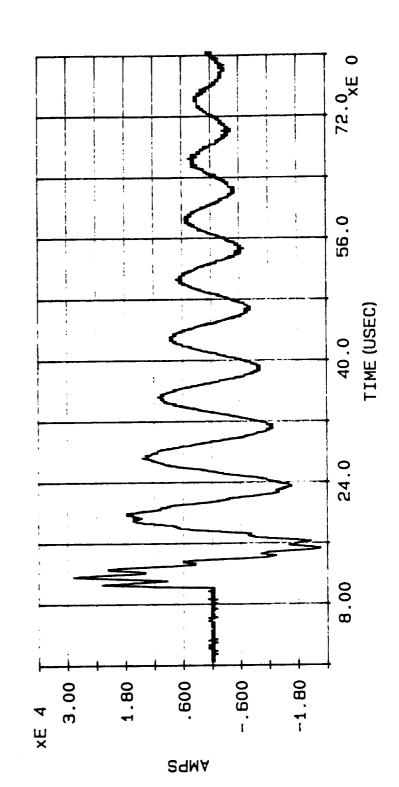
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TIME: 18: 01: 38.04

FILE: C:\CAT\DATA4\MI100.073

MAX CURRENT = 2.884E4

ACTION INTEGRAL = 4.500E3



INJECTION CURRENT WAVEFORM, PLOT #254, ATTACH POINT #1, DISCHARGE #73

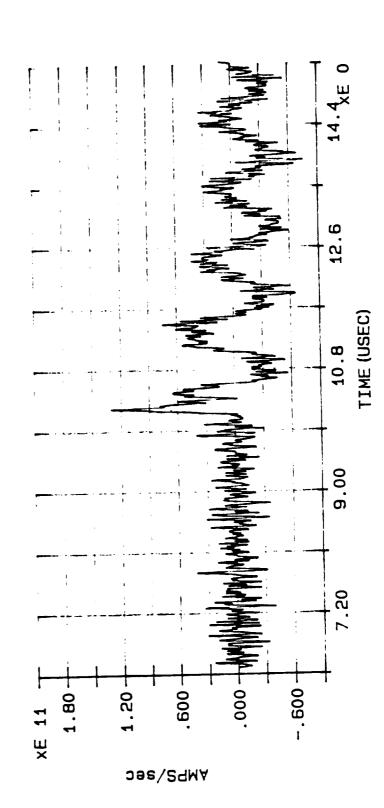
MARX di/dt

05/23/90 DATE:

TIME:

15: 10: 42.07

C:\CAT\DATA4\MI100.073 1.304E11 MAX di/dt FILE:



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #255, ATTACH POINT #1, DISCHARGE #73

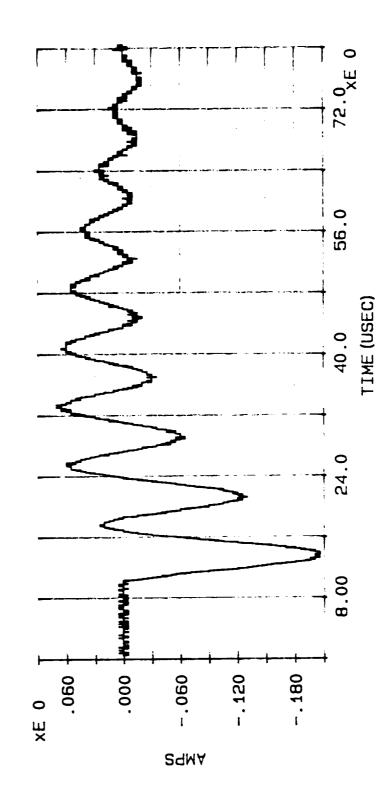
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 59: 46.41

FILE: C:\CAT\DATA4\MC111.073

MAX CURRENT = -2.104E-1



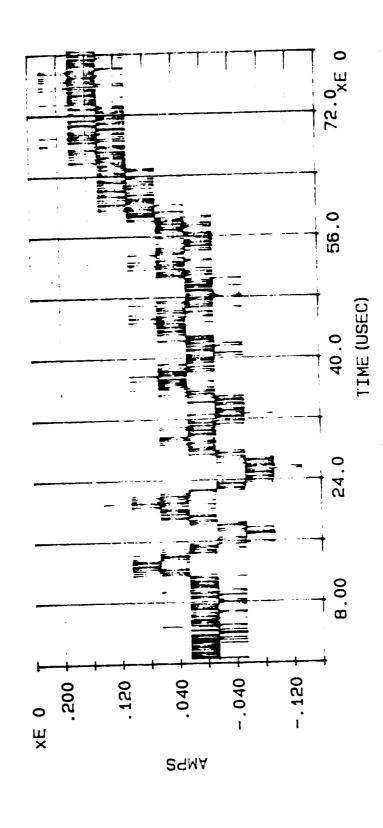
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #254), PLOT #256, ATTACH POINT #1, DISCHARGE #73

MARX MEASUREMENT: CABLE CURRENT

05/23/90 DATE:

16: 03: 47.42 TIME: C:\CAT\DATA4\MC107.073

2.644E-1 MAX CURRENT FILE:



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #254), PLOT #257, ATTACH POINT #1, DISCHARGE #73

MARX MEASUREMENT: INPUT CURRENT

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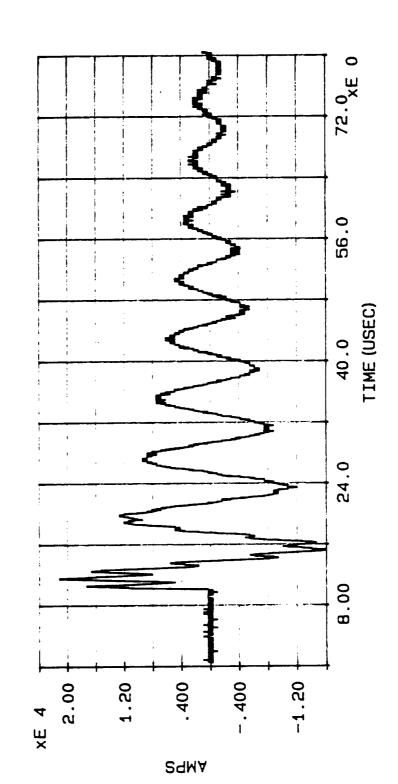
18: 05: 57.61

FILE:

C:\CAT\DATA4\MI300.074

2.118E4 MAX CURRENT =

2.073E3 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #258, ATTACH POINT #3, DISCHARGE #74

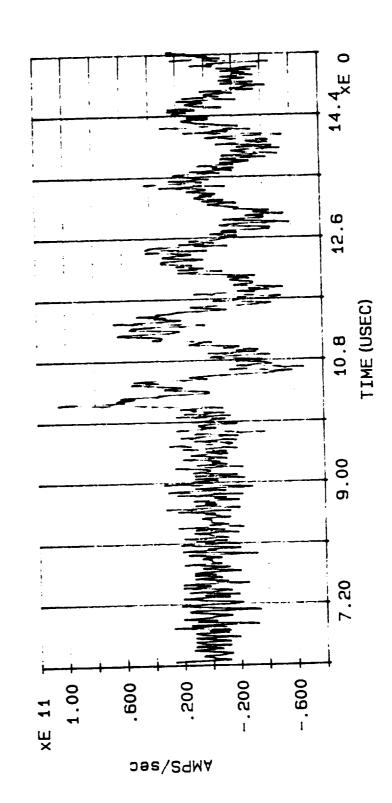
MARX d1/dt

DATE: 05/23/90

TIME: 15: 14: 10.51

FILE: C:\CAT\DATA4\MI300.074

MAX di/dt = 1.060E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #259, ATTACH POINT #3, DISCHARGE #74

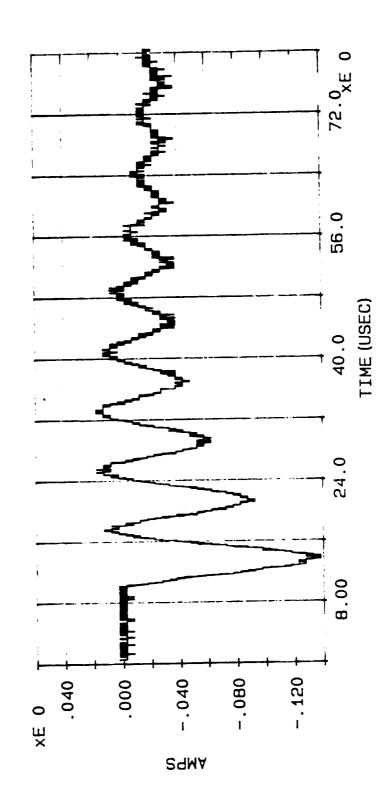
MARX MEASUREMENT: CABLE CURRENT

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TIME: 16: 09: 32.02

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MAX CURRENT = -1.379E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #258), PLOT #260, ATTACH POINT #3, DISCHARGE #74

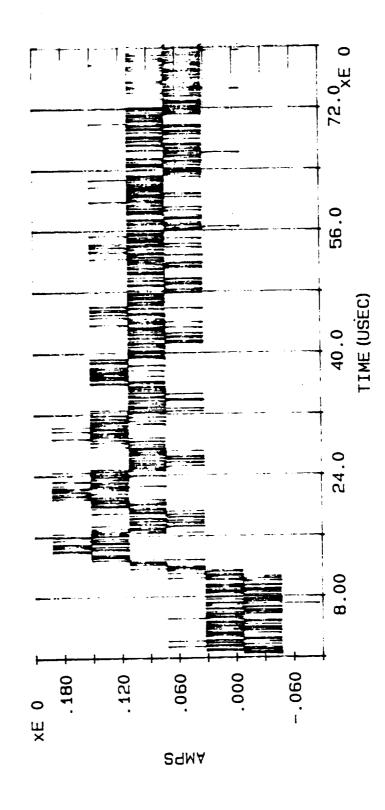
MARX MEASUREMENT: ( LABLE CURRENT

DATE: 05/23/90

TIME: 16: 18: 09.31

FILE: C:\CAT\DATA4\MC307.074

MAX CURRENT = 2.317E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #258), PLOT #261, ATTACH POINT #3, DISCHARGE #74

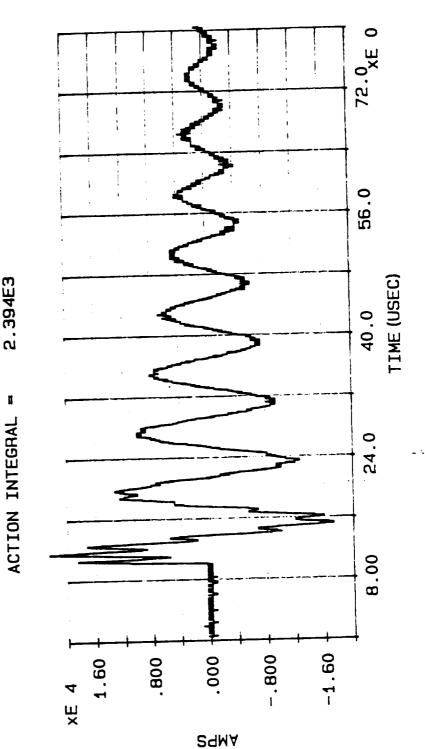
MARX MEASUREMENT: INPUT CURRENT

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18: 09: 57.53 TIME:

C:\CAT\DATA4\MI300.075 FILE:

2.248E4 MAX CURRENT = 2.394E3



INJECTION CURRENT WAVEFORM, PLOT #262, ATTACH POINT #3, DISCHARGE #75

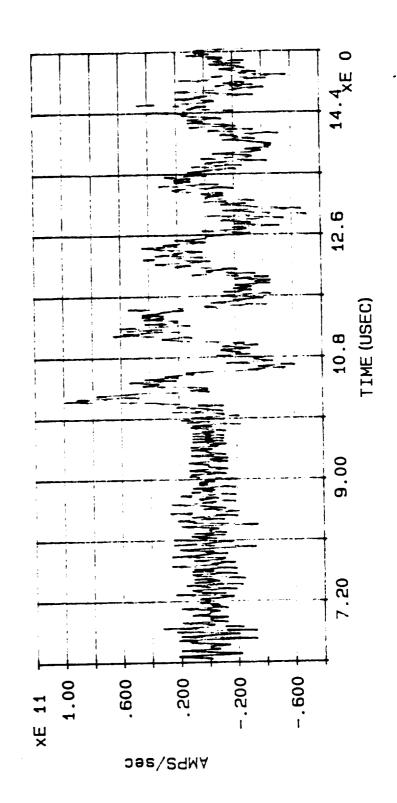
MARX d1/dt

DATE: 05/23/90

TIME: 15: 17: 28.14

FILE: C:\CAT\DATA4\M1300.075

MAX di/dt = 9.920E10



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #263, ATTACH POINT #3, DISCHARGE #75

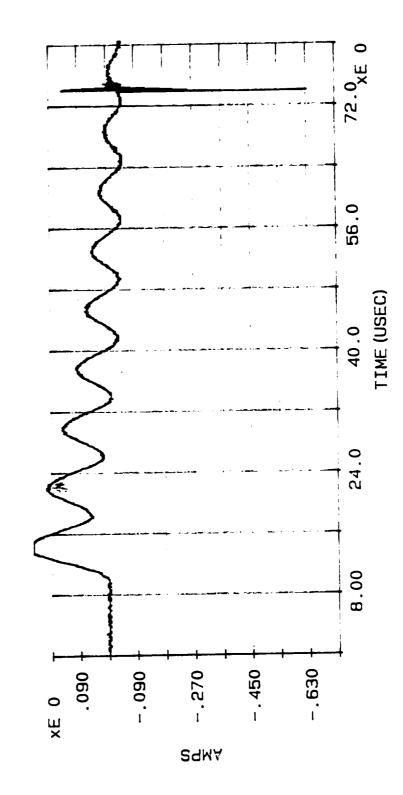
MARX MEASUREMENT: CABLE CURRENT

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TIME: , 16: 23: 12.06

FILE: C:\CAT\DATA4\MC312.075

MAX CURRENT = -6.434E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #262), PLOT #264, ATTACH POINT #3, DISCHARGE #75

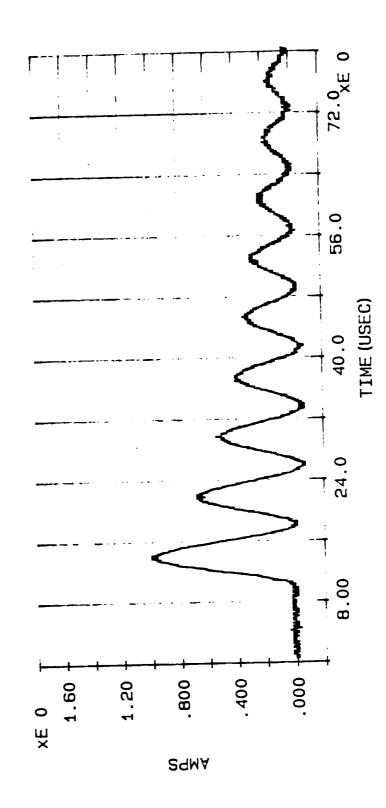
MARX MEASUREMENT: CABLE CURRENT

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TIME: 16: 27: 27.36

FILE: C:\CAT\DATA4\MC306.075

MAX CURRENT = 1.00BE0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #262), PLOT #265, ATTACH POINT #3, DISCHARGE #75

MARX MEASUREMENT: INPUT CURRENT

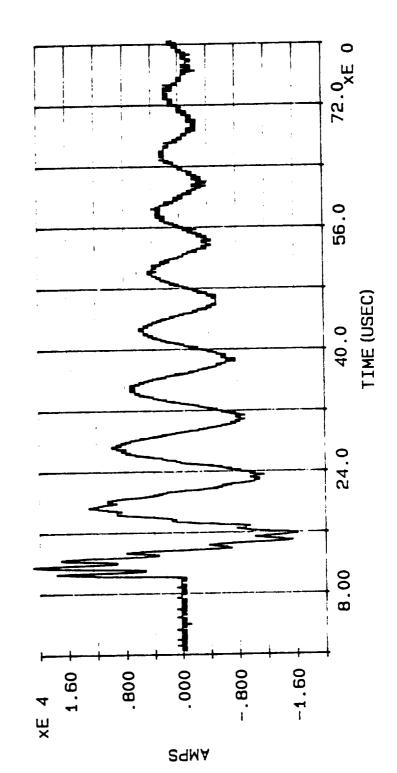
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TIME: 18: 13: 52.77

FILE: C:\CAT\DATA4\M1600.076

MAX CURRENT = 2.098E4

ACTION INTEGRAL = 2.107E3



INJECTION CURRENT WAVEFORM, PLOT #266, ATTACH POINT #6, DISCHARGE #76

MARX d1/dt

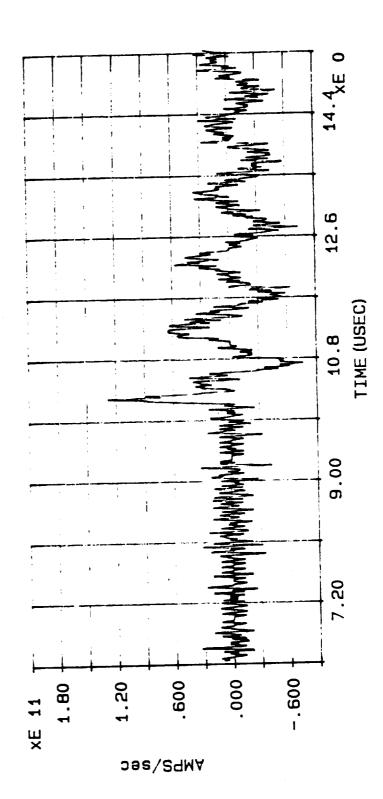
DATE: 05/23/90

TIME: 13: 52: 50

13: 52: 50.17 C:\CAT\DATA4\M1600.076

FILE: C:\CAT\DATA4\

MAX di/dt = 1.281E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #267, ATTACH POINT #6, DISCHARGE #76

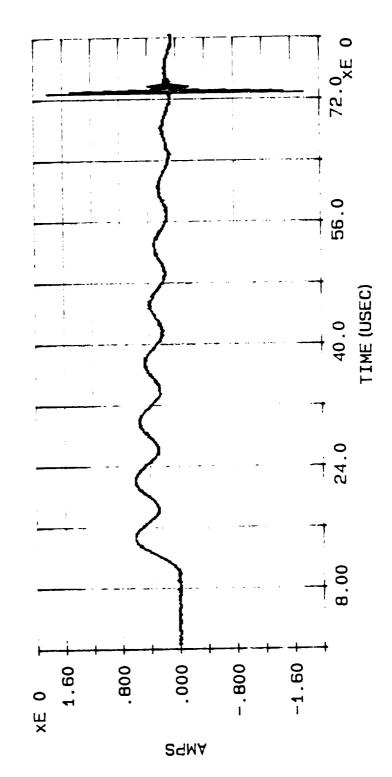
MARX MEASUREMENT: CABLE CURRENT

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TIME: 16: 33: 19.65

FILE: C:\CAT\DATA4\MC612.076

MAX CURRENT = -2.521E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #266), PLOT #268, ATTACH POINT #6, DISCHARGE #76

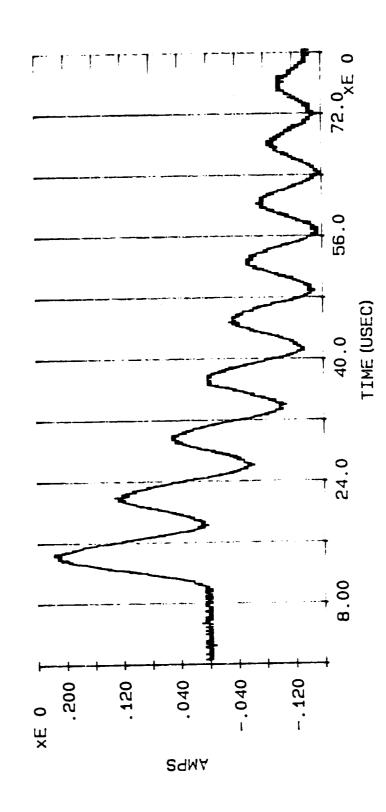
MARX MEASUREMENT: CABLE CURRENT

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TIME: 16: 38: 22.67

C:\CAT\DATA4\MC606.076

MAX CURRENT = 2.178E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #266), PLOT #269, ATTACH POINT #6, DISCHARGE #76

MARX MEASUREMENT: INPUT CURRENT

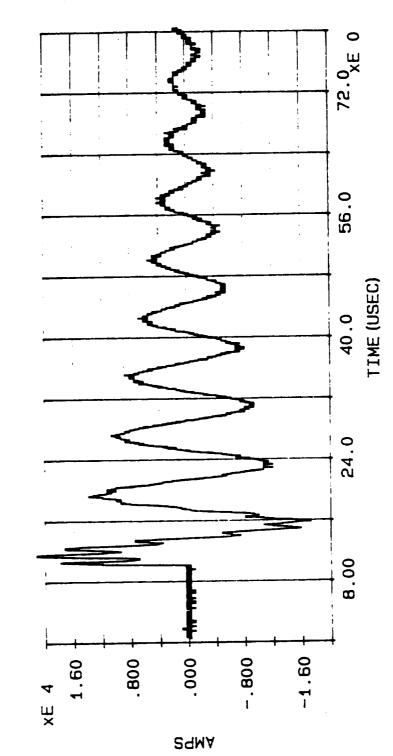
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TIME: 18: 17: 47.36

FILE: C:\CAT\DATA4\M1600.077

MAX CURRENT = 2.116E4

ACTION INTEGRAL = 2.375E3



INJECTION CURRENT WAVEFORM, PLOT #270, ATTACH POINT #6, DISCHARGE #77

MARX di/dt

DATE: 05/23/90

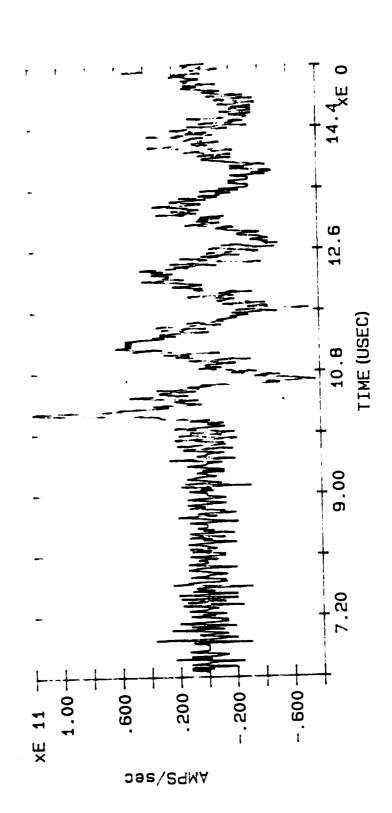
TIME: 13: 49: 08.27

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MAX d1/dt - 1.197E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #271, ATTACH POINT #6, DISCHARGE #77

MARX MEASUREMENT: CABLE CURRENT

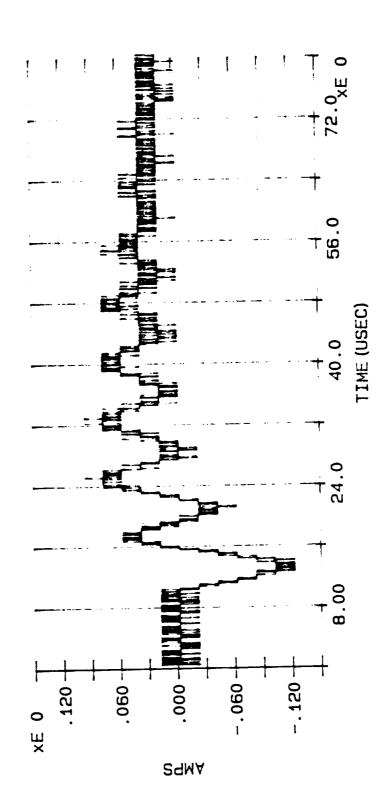
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TIME: 18: 17: 27.59

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FILE:

MAX CURRENT = -1.228E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #270), PLOT #272, ATTACH POINT #6, DISCHARGE #77

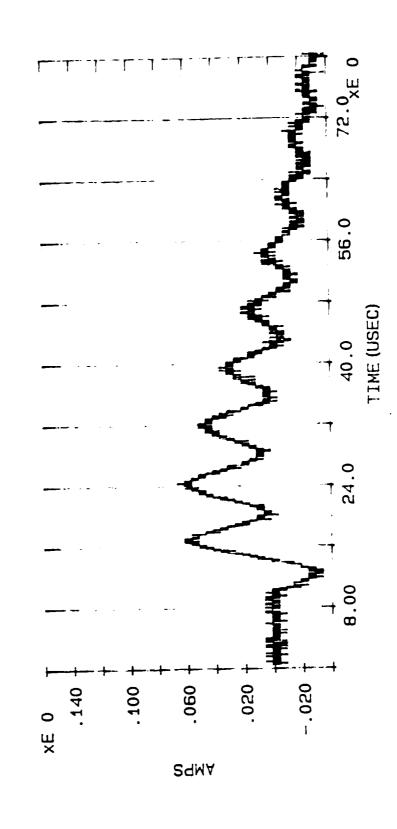
MARX MEASUREMENT: CABLE CURRENT

DATE: 05/23/90

TIME: 18: 21: 20.25

FILE: C:\CAT\DATA4\MC607.077

MAX CURRENT = 6.685E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #270), PLOT #273, ATTACH POINT #6, DISCHARGE #77

COMPOSITE CURRENT BANK: HIGH CURRENT

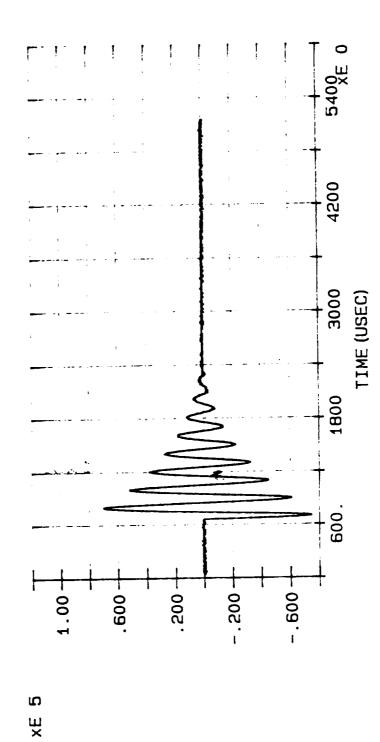
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TIME: 11: 20: 54.51

datap FILE: C:\HCI\H_CHAN1.078

MAX CURRENT = -7.433E4

ACTION INTEGRAL = 1.144E6



SGMA

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #274, ATTACH POINT #3, DISCHARGE #78

COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/23/90 DATE:

TIME:

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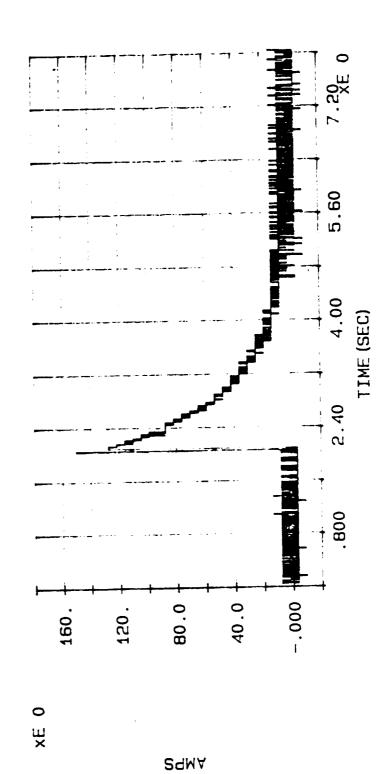
C:\HCI\H_CHAN6.078 datap FILE:

II MAX CURRENT

1.565E2



1.203E2



INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #275, ATTACH POINT #3, DISCHARGE #78

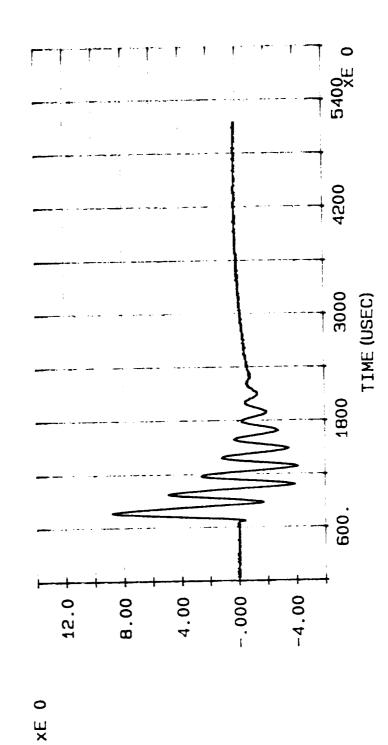
P2100 PROBE

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C:\HCI\H_CHAN2.078 datap FILE:

1.123E-2 8.858E0 11 ACTION INTEGRAL MAX CURRENT



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #274 AND #275), PLOT #276, ATTACH POINT #3, DISCHARGE #78



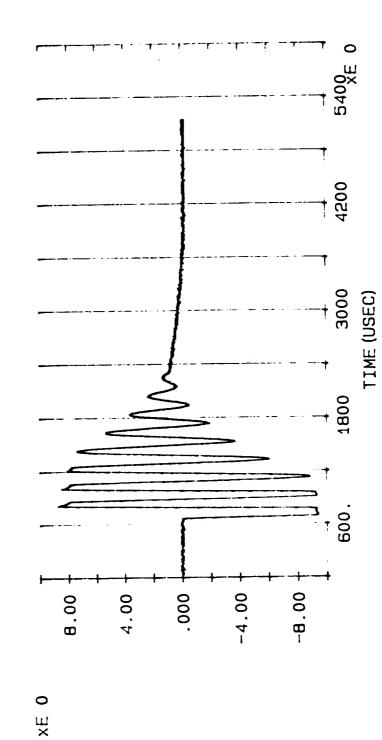
DATE: 05/23/90

TIME: 11: 20: 54.51

datap FILE: C:\HCI\H_CHAN3.078

MAX CURRENT = -9.383E0

ACTION INTEGRAL = 4.163E-2



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #274 AND #275), PLOT #277, ATTACH POINT #3, DISCHARGE #78

COMPOSITE CURRENT BANK: HIGH CURRENT

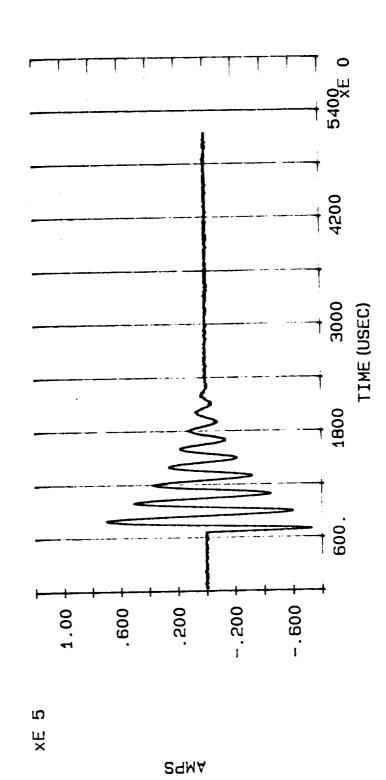
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TIME: 11: 38: 49.51

datap FILE: C:\HCI\H_CHAN1.079

MAX CURRENT = -7.292E4

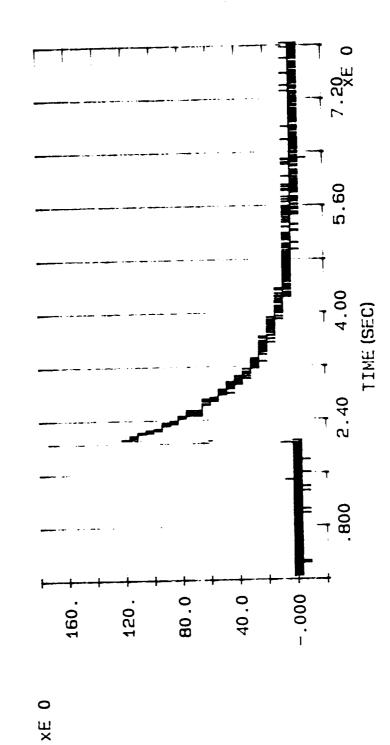
ACTION INTEGRAL = 1.119E6



INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #278, ATTACH POINT #1, DISCHARGE #79

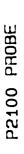
COMPOSITE CURRENT BANK: CONTINUING CURRENT

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INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #279, ATTACH POINT #1, DISCHARGE #79



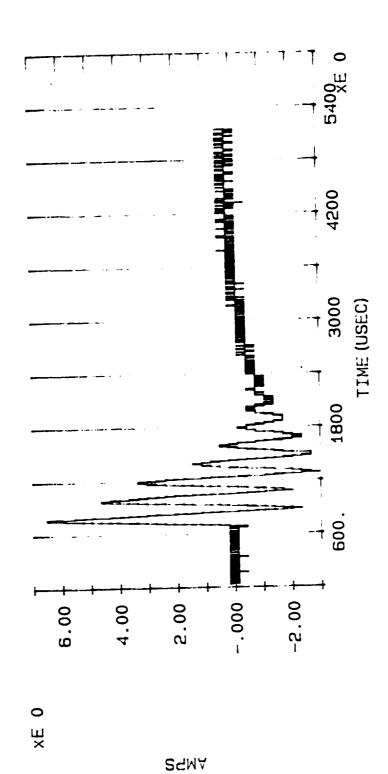
DATE: 05,'23,'90

TIME: 11: 38: 49.51

datap FILE: C:\HCI\H_CHAN2.079

MAX CURRENT = 6.528E0

ACTION INTEGRAL = 6.874E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #278 AND #279), PLOT #280, ATTACH POINT #1, DISCHARGE #79

P2100 PROBE

05/23/90

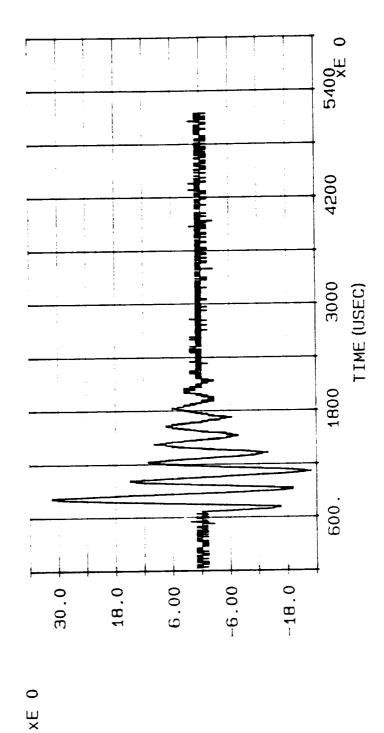
11: 38: 49.51 DATE: TIME:

C:\HCI\H_CHAN3.079 datap FILE:

MAX CURRENT

3.268E1

1.443E-1 11 ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #278 AND #279), PLOT #281, ATTACH POINT #1, DISCHARGE #79

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/23/90

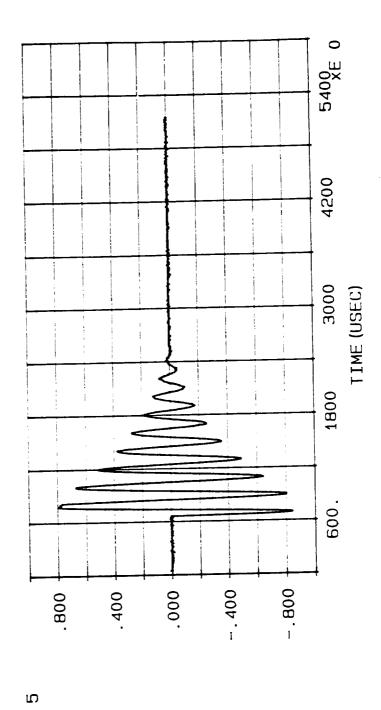
TIME: 11: 53: 03.88

datap FILE: C:\HCI\H_

C:\HCI\H_CHAN1.080

MAX CURRENT = -8.439E4

ACTION INTEGRAL = 1.998E6



SGMA

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #282, ATTACH POINT: BOND STRAP #1, DISCHARGE #80

Ж К

COMPOSITE CURRENT BANK: CONTINUING CURRENT

DATE: 05/23/90

TIME: 11: 53: 03.88

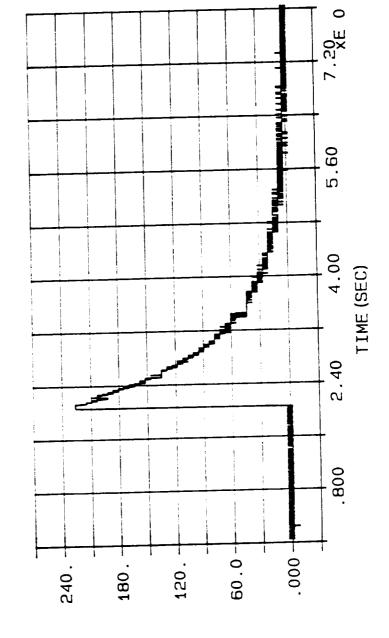
datap FILE: C:\H MAX CURRENT = 2

C:\HCI\H_CHAN6.080

CHARGE =

2.381E2

2.219E2



SAMA

INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #283, ATTACH POINT: BOND STRAP #1, DISCHARGE #80

xE 0

P2100 PROBE

05/53/90

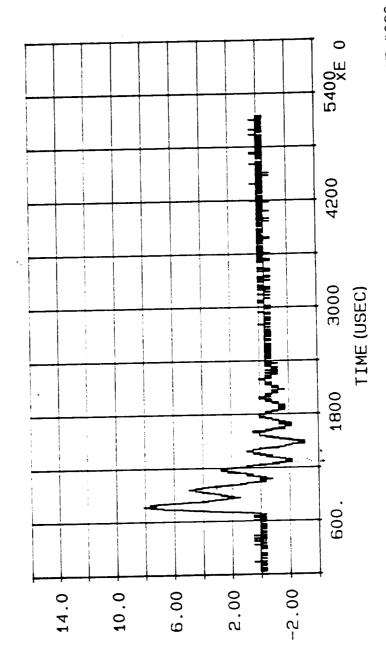
DATE: TIME:

11: 53: 03.88

C:\HCI\H_CHAN2.080 datap FILE:

B.140E0 MAX CURRENT

9.396E-3 11 ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #282 AND #283), PLOT #284, ATTACH POINT: BOND STRAP #1, DISCHARGE #80

xE 0

P2100 PR0BE

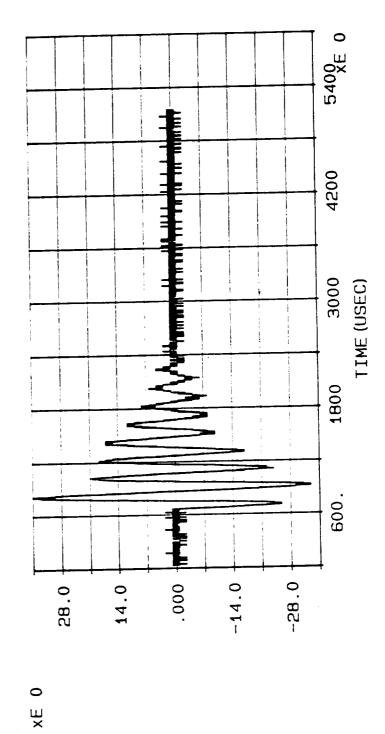
DATE: 05/23/90

TIME: 11: 53: 03.88

datap FILE: C:\HCI\H_CHAN3.080

MAX CURRENT = 3.490E1

ACTION INTEGRAL = 2.536E-1



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #282 AND #283), PLOT #285, ATTACH POINT: BOND STRAP #1, DISCHARGE #80

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE:

05/23/90

TIME:

12: 16: 25.41

C:\HCI\H_CHAN1.081

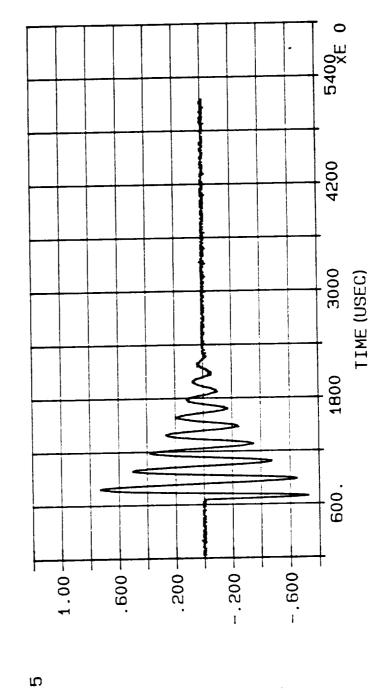
datap FILE:

II MAX CURRENT

7.331E4

n ACTION INTEGRAL

1.166E6



SAMA

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #286, ATTACH POINT: BOND STRAP #2, DISCHARGE #81

ХE

COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/23/90 DATE:

TIME:

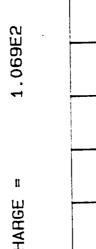
12: 16: 25.41

C:\HCI\H_CHAN6.081 datap FILE:

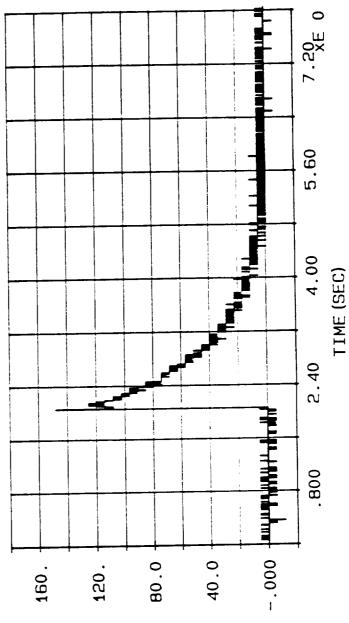
MAX CURREN∰ =

1.483E2

CHARGE =



0 ×E



SAMA

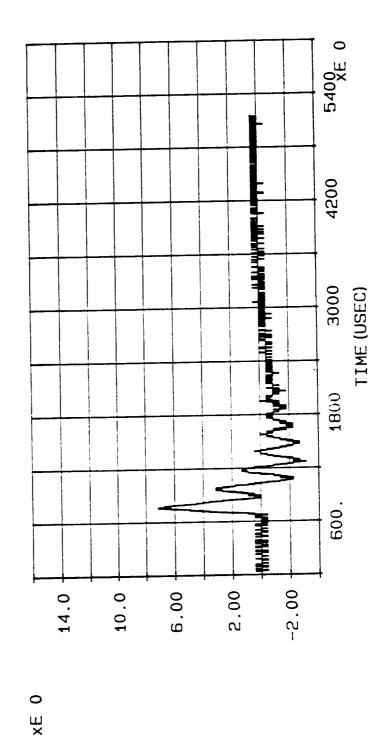
INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #287, ATTACH POINT: BOND STRAP #2, DISCHARGE #81

DATE: 05/23/90

UAIE: 03/23/30 TIME: 12:16:25.41 datap FILE: C:\HCI\H_CHAN2.081

MAX CURRENT = 7.158E0

ACTION INTEGRAL = 6.818E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #286 AND #287), PLOT #288, ATTACH POINT: BOND STRAP #2, DISCHARGE #81

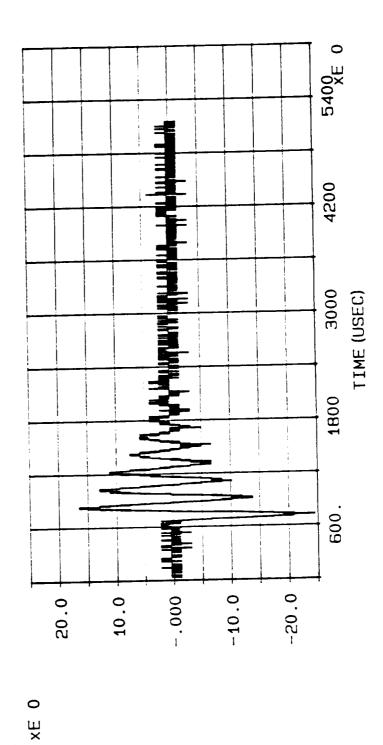
05/23/90

12: 16: 25.41 DATE: TIME:

C:\HCI\H_CHAN3.081 datap FILE:

-2.447E1

7.072E-2 11 ACTION INTEGRAL 11 MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #286 AND #287), PLOT #289, ATTACH POINT: BOND STRAP #2, DISCHARGE #81

COMPOSITE CURRENT BANK: HIGH CURRENT

05/23/90 DATE:

TIME:

12: 29: 17,39

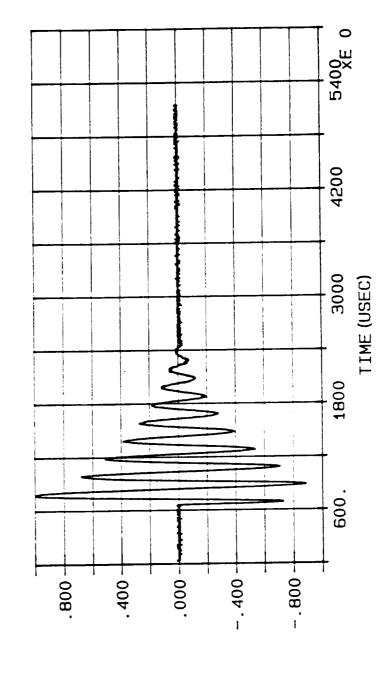
C:\HCI\H_CHAN1.082 datap FILE:

1.009E5

MAX CURRENT =

ACTION INTEGRAL

2.194E6



SAMA

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #290, ATTACH POINT: BOND STRAP #2, DISCHARGE #82

D ×E COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/53/30

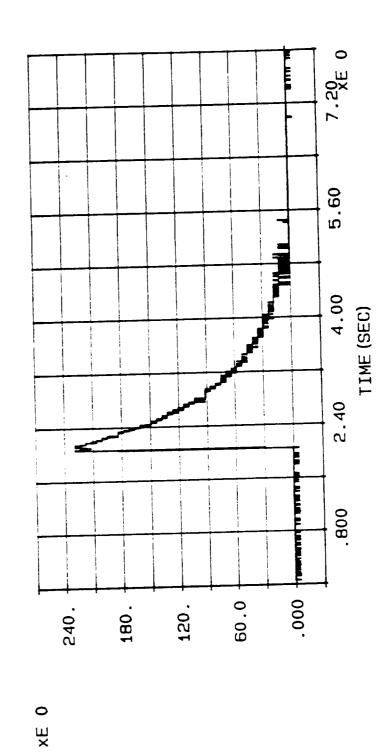
12: 29: 17.39 TIME: DATE:

C:\HCI\H_CHAN6.082

2.293E2 MAX CURRENT == datap FILE:

CHARGE =

1.997E2



SGMA

INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #291, ATTACH POINT: BOND STRAP #2, DISCHARGE #82

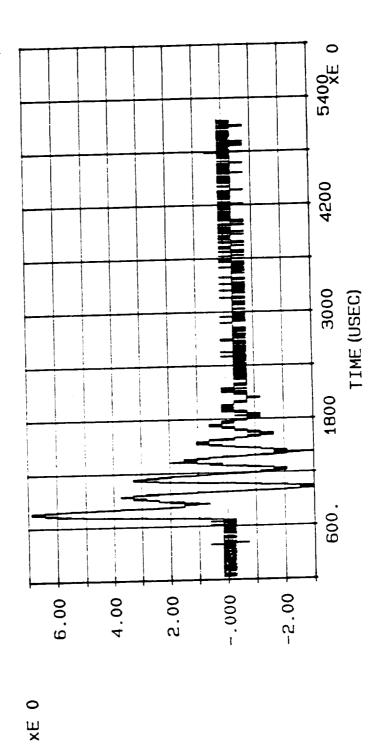
05/53/30

12: 29: 17.39 DATE: TIME:

C:\HCI\H_CHAN2.082 datap FILE:

7.322E0 Π MAX CURRENT

6.802E-3 H ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #290 AND #291), PLOT #292, ATTACH POINT: BOND STRAF #2, DISCHARGE #82

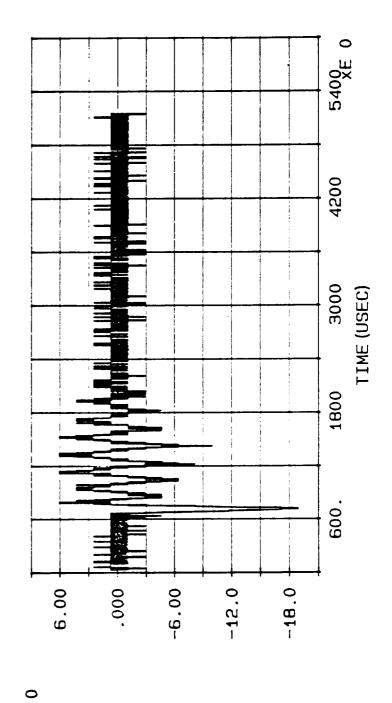
DATE: 05/23/90

TIME: 12: 29: 17.39

datap FILE: C:\HCI\H_CHAN3.082

MAX CURRENT = -1.888E1

ACTION INTEGRAL = 2.927E-2



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #290 AND #291), PLOT #293, ATTACH POINT: BOND STRAP #2, DISCHARGE #82

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COMPOSITE CURRENT BANK: HIGH CURRENT

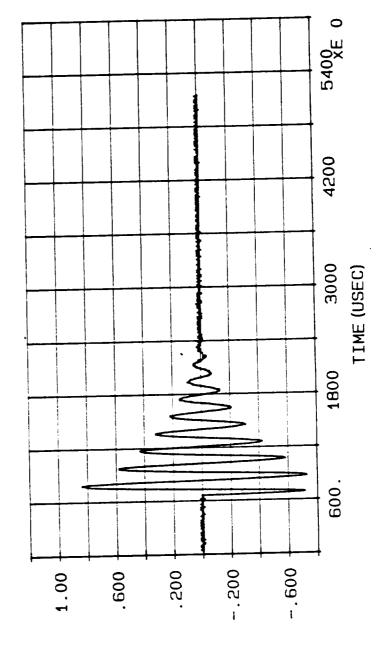
05/23/90 DATE:

14: 10: 49.45 TIME:

datap FILE:

C:\HCI\H_CHAN1.083

1.485E6 8.537E4 11 ACTION INTEGRAL MAX CURRENT



SAMA

INJECTION CURRENT WAVEFORM (HIGE CURRENT BANK), PLOT #294, ATTACH POINT: BOND STRAP #4, DISCHARGE #83

xE 5

COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/23/90 DATE:

14: 10: 49.45

TIME:

C:\HCI\H_CHAN6.083

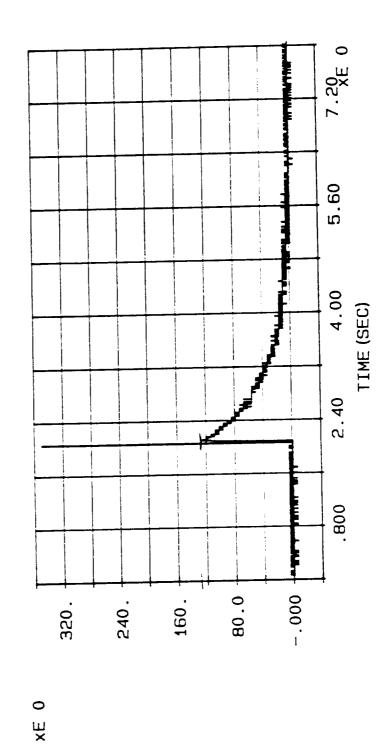
datap FILE:

n MAX CURRENT

3.500E2

CHARGE =

1.088E2



INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #295, ATTACH POINT: BOND STRAP #4, DISCHARGE #83

05/23/90

14: 10: 49.45 DATE: TIME:

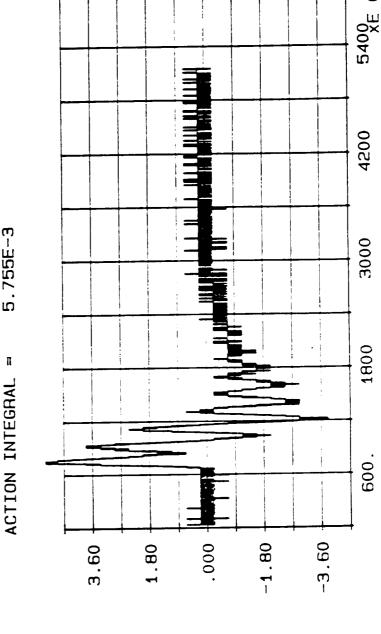
C:\HCI\H_CHAN2.083

MAX CURRENT = datap FILE:

5.594E0

5.755E-3

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SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #294 AND #295), PLOT #296, ATTACH POINT: BOND STRAP #4, DISCHARGE #83

TIME (USEC)

600.

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05/23/90

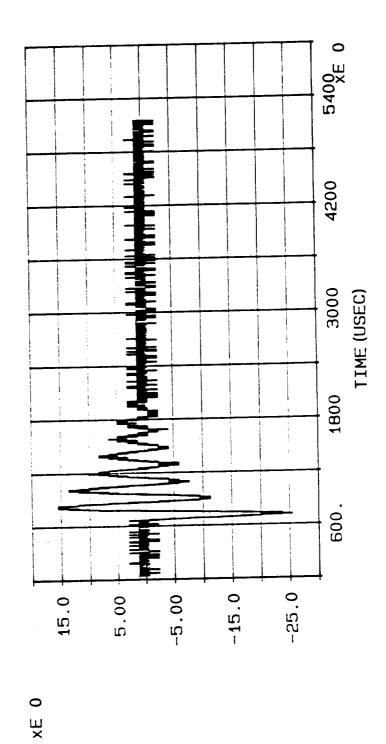
DATE: 05/2 TIME: 14:1

14: 10: 49.45

datap FILE: C:\HCI\H_CHAN3.083

MAX CURRENT = -2.548E1

ACTION INTEGRAL = 7.130E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #294 AND #295), PLOT #297, ATTACH POINT: BOND STRAP #4, DISCHARGE #83

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE:

05/23/90

TIME:

14: 24: 46.63

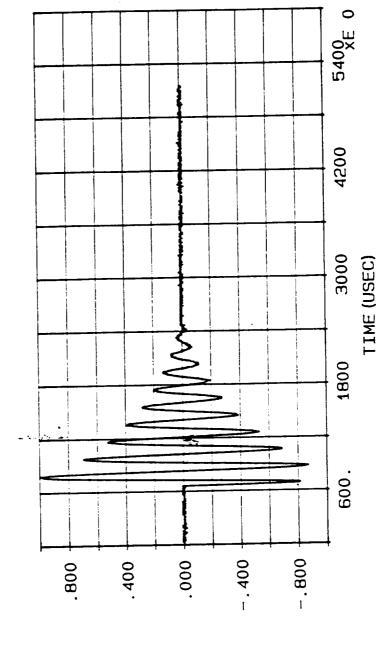
datap FILE:

C:\HCI\H_CHAN1.084

MAX CURRENT

9.939E4

2.132E6 Ii ACTION INTEGRAL



SAMA

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #298, ATTACH POINT: BOND STRAP #4, DISCHARGE #84

xE 5

COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/23/90 DATE:

14: 24: 46.63 datap FILE: TIME:

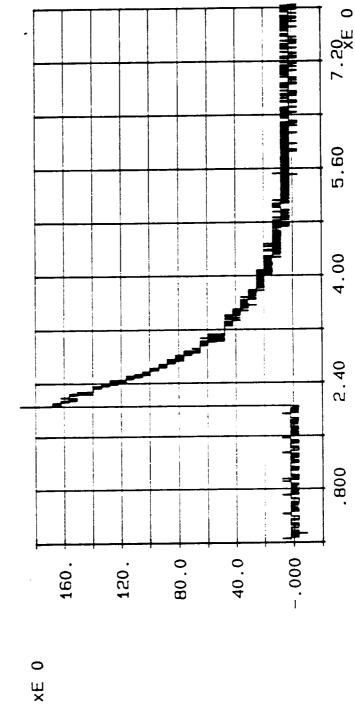
C:\HCI\H_CHAN6.084

2.080E2

li

MAX CURRENT 11 CHARGE

1.643E2



SGMA

INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #299, ATTACH POINT: BOND STRAP #4, DISCHARGE #84

TIME (SEC)

05/23/90 DATE:

TIME:

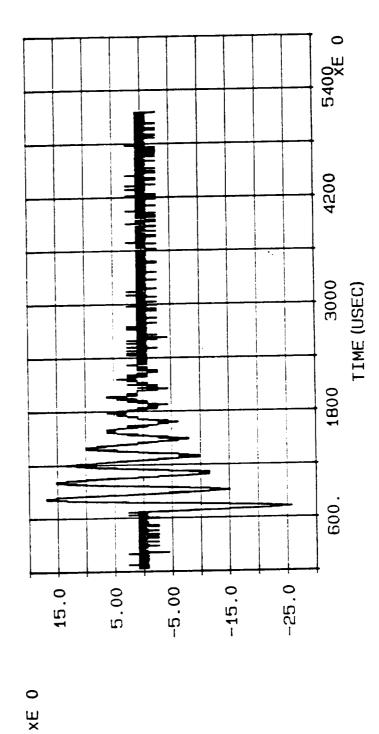
14: 24: 46.63

C:\HCI\H_CHAN3.084

MAX CURRENT = datap FILE:

-2.579E1

9.305E-2 11 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #298 AND #299), PLOT #301, ATTACH POINT: BOND STRAP #4, DISCHARGE #84

COMPOSITE CURRENT BANK: HIGH CURRENT

05/23/90 DATE:

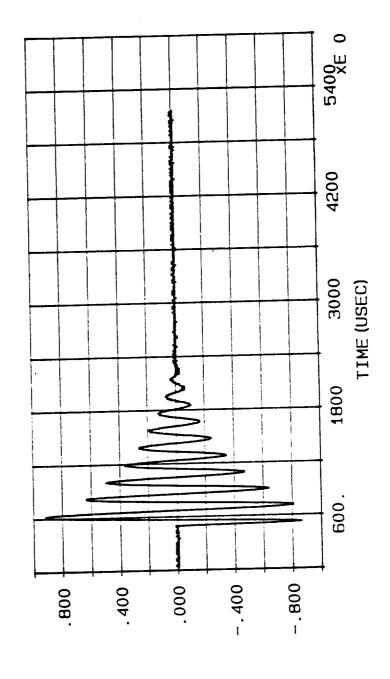
TIME:

16: 55: 48.73

C:\HCI\H_CHAN1.085 MAX CURRENT = datap FILE:

9.188E4

**1.865E6** ACTION INTEGRAL =



SGMA

INJECTION CURRENT WAVEFORM, PLOT #302, ATTACH POINT: BOND STRAP #5, DISCHARGE #85

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05/53/90

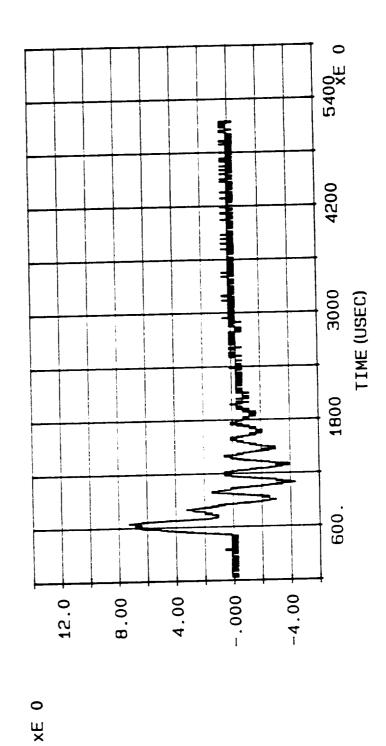
DATE: TIME:

16: 55: 48.73

C:\HCI\H_CHAN2.085 datap FILE:

7.310E0 11 MAX CURRENT

8.856E-3 ACTION INTEGRAL =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #302), PLOT #303, ATTACH POINT: BOND STRAP #5, DISCHARGE #85

05/53/90

DATE: TIME:

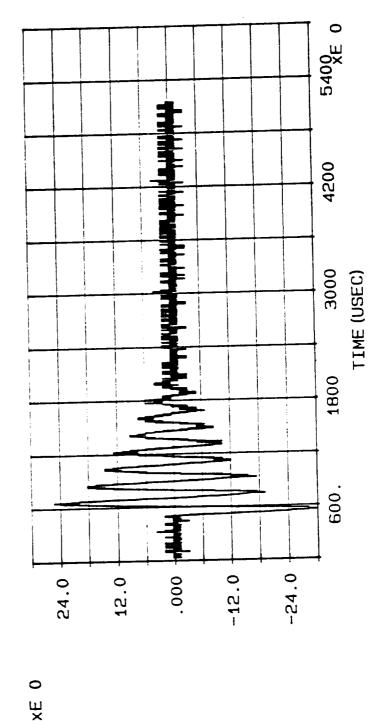
16: 55: 48.73

C:\HCI\H_CHAN3.085 datap FILE:

-3.166E1 ACTION INTEGRAL MAX CURRENT

1.478E-1

11



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #302), PLOT #304, ATTACH POINT: BOND STRAP #5, DISCHARGE #85

COMPOSITE CURRENT BANK: HIGH CURRENT

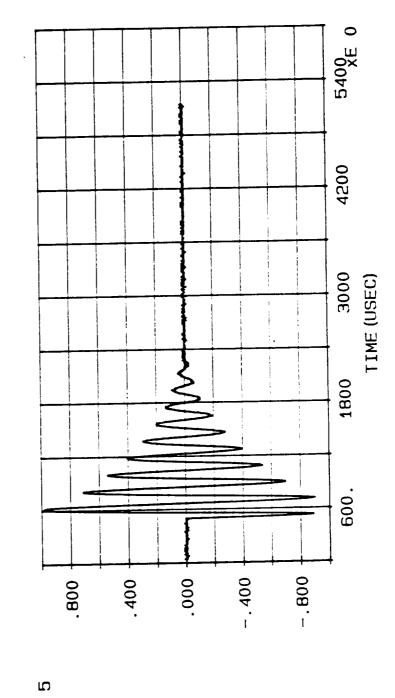
DATE: 05/23/90

05/53/50

TIME: 17: 11: 58.77

datap FILE: C:\HCI\H_CHAN1.086

MAX CURRENT = 9.853E4
ACTION INTEGRAL = 2.197E6



SGMA

INJECTION CURRENT WAVEFORM, PLOT #305, ATTACH POINT: BOND STRAP #6, DISCHARGE #86

X

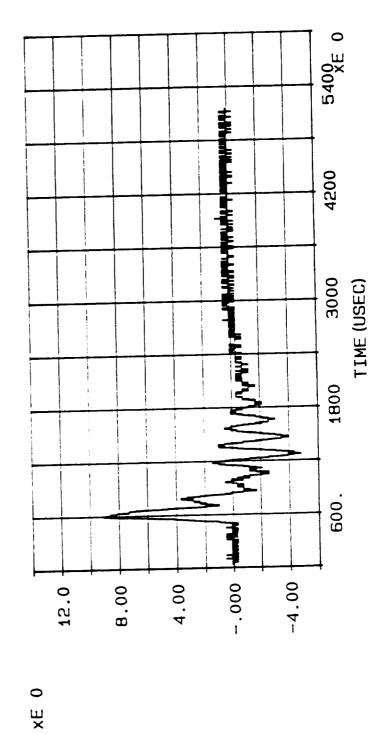
05/23/90

DATE:

17: 11: 58.77 TIME:

C:\HCI\H_CHAN2.086 9.071E0 MAX CURRENT = datap FILE:

1.178E-2 ij ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #305), PLOT #306, ATTACH POINT: BOND STRAP #6, DISCHARGE #86

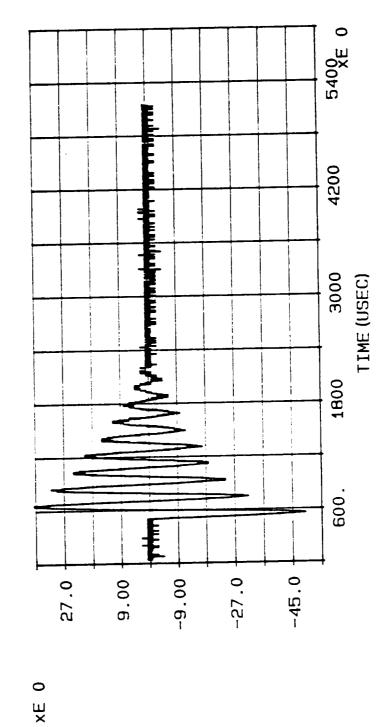
05/23/90

DATE:

17: 11: 58.77 TIME:

C:\HCI\H_CHAN3.086 datap FILE:

3.876E-1 -4.901E1 ACTION INTEGRAL = MAX CURRENT =



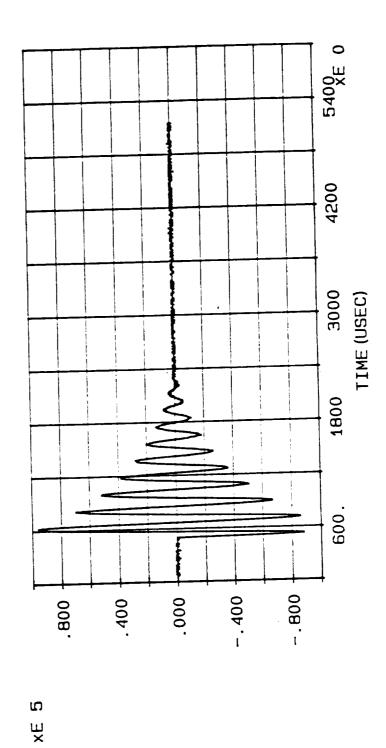
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #305), PLOT #307, ATTACH POINT: BOND STRAP #6, DISCHARGE #86

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/23/90

TIME: 17: 27: 11.13

MAX CURRENT = 9.604E4
ACTION INTEGRAL = 2.006E6



INJECTION CURRENT WAVEFORM, PLOT #308, ATTACH POINT: BOND STRAP #7, DISCHARGE #87

05/23/90

DATE: 00 TIME: 1

17: 27: 11. 13

1/. 6/. 11.1.

C:\HCI\H_CHAN2.087

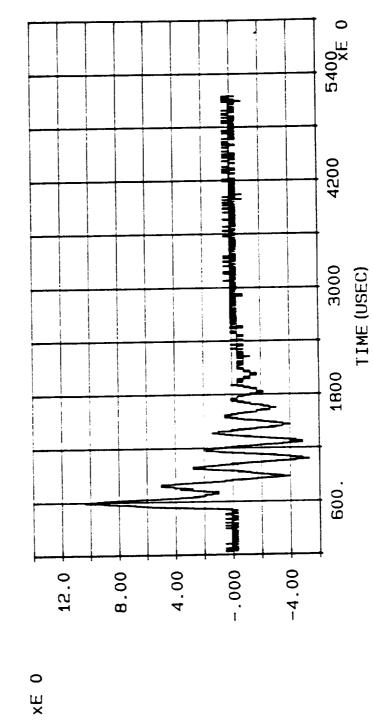
datap FILE:

MAX CURRENT =

1.040E1

ACTION INTEGRAL =

1.385E-2



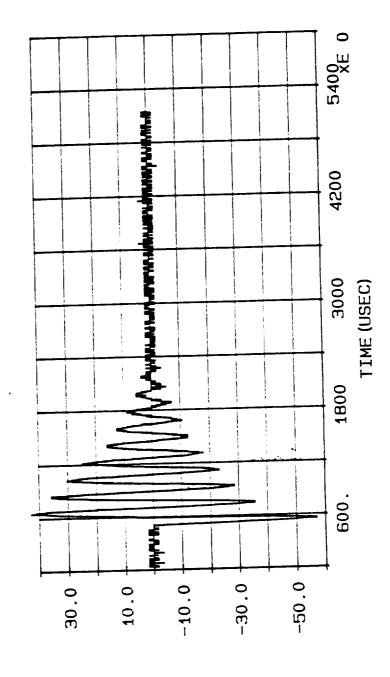
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #308), PLOT #309, ATTACH POINT: BOND STRAP #7, DISCHARGE #87

05/23/90 DATE:

17: 27: 11.13 TIME: C:\HCI\H_CHAN3.087

datap FILE:

5.183E-1 -5.698E1 I ACTION INTEGRAL II MAX CURRENT



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #308), PLOT #310, ATTACH POINT: BOND STRAP #7, DISCHARGE #87

xE 0

COMPOSITE CURRENT BANK: HIGH CURRENT

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TIME:

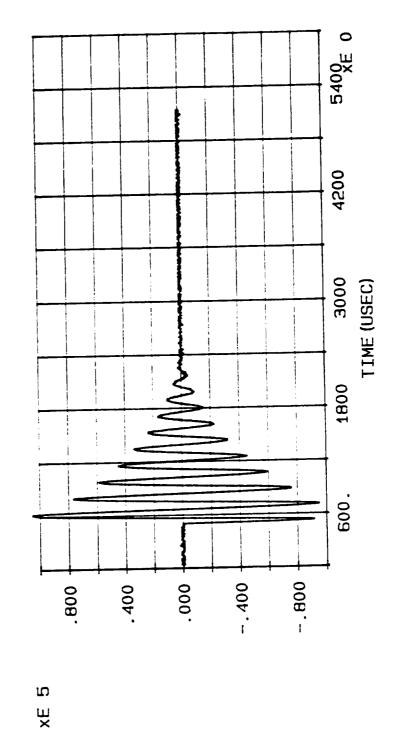
17: 41: 16.16

C:\HCI\H_CHAN1.088 datap FILE:

MAX CURRENT

1.050E5

2.469E6 Π ACTION INTEGRAL



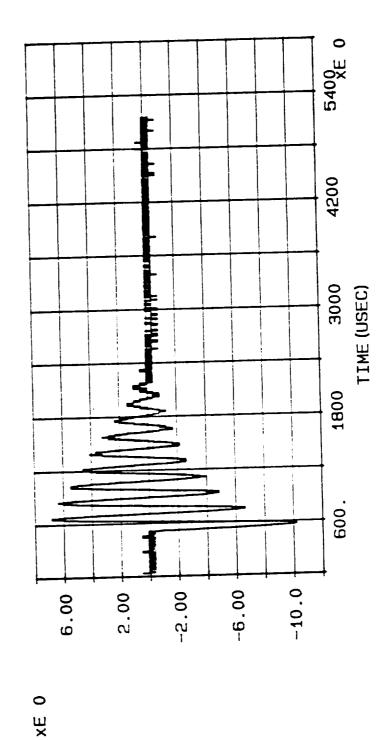
INJECTION CURRENT WAVEFORM, PLOT #311, ATTACH POINT: BOND STRAP #9, DISCHARGE #88

05/53/90

17: 41: 16.16 TIME: DATE:

C:\HCI\H_CHAN2.088 datap FILE:

-1.020E1 ll MAX CURRENT 1.816E-2 Π ACTION INTEGRAL

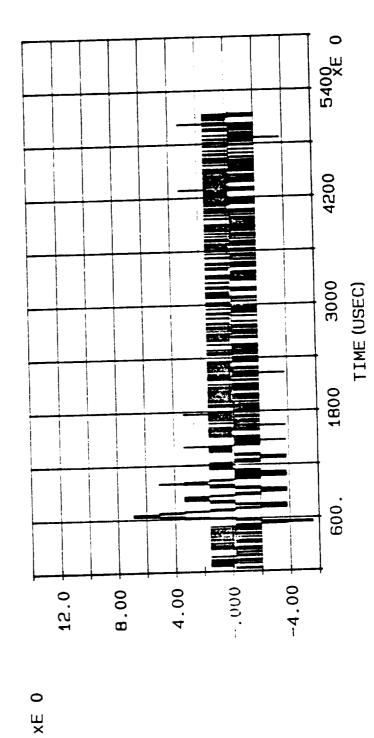


SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #311), PLOT #312, ATTACH POINT: BOND STRAP #9, DISCHARGE #88

05/23/90

17: 41: 16.16 DATE: TIME: C:\HCI\H_CHAN3.088 datap FILE:

8.687E0 MAX CURRENT = 1.014E-2 11 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #311), PLOT #313, ATTACH POINT: BOND STRAP #9, DISCHARGE #88

COMPOSITE CURRENT BANK: HIGH CURRENT

05/23/90 DATE:

TIME:

17: 50: 42.28

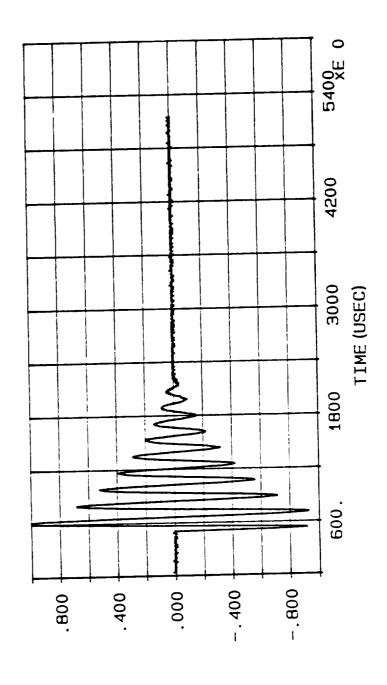
datap FILE:

C:\HCI\H_CHAN1.089

MAX CURRENT =

1.013E5

2.191E6 ACTION INTEGRAL =



SAMA

INJECTION CURRENT WAVEFORM, PLOT #314, ATTACH POINT: BOND STRAP #10, DISCHARGE #89

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05/23/90

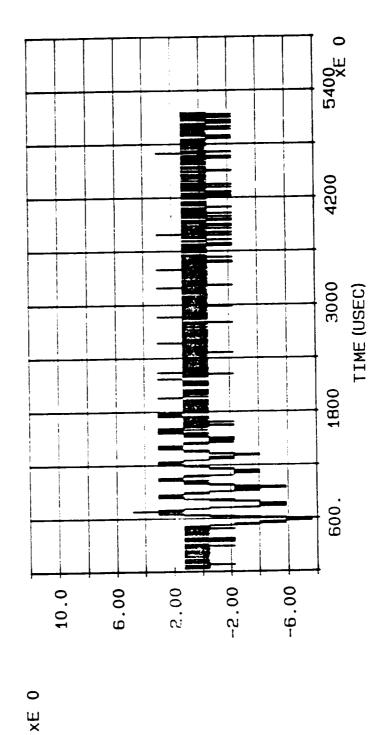
17: 50: 42.28 DATE: TIME:

C:\HCI\H_CHAN2.089 datap FILE:

MAX CURRENT

-9.400E0

1.236E-2 II ACTION INTEGRAL



SHMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #314), PLOT #315, ATTACH POINT: BOND STRAP #10, DISCHARGE #89

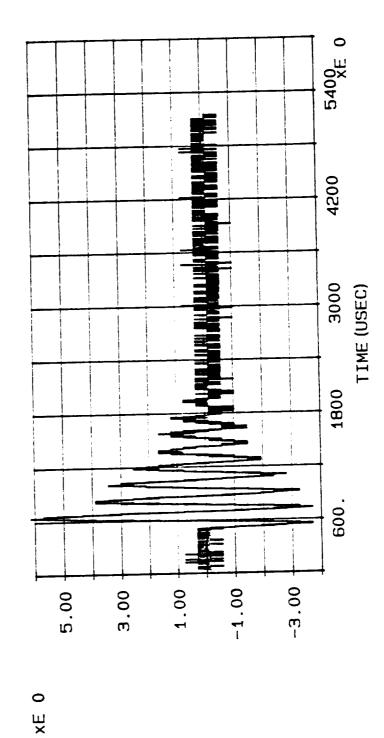
DATE: 05/23/90

TIME: 17: 50: 42.28

datap FILE: C:\HCI\H_CHAN3.089

MAX CURRENT = 6.140E0

ACTION INTEGRAL = 5.439E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #314), PLOT #316, ATTACH POINT: BOND STRAP #10, DISCHARGE #89

COMPOSITE CURRENT BANK: HIGH CURRENT

05/23/90 DATE:

18: 04: 02.16 TIME:

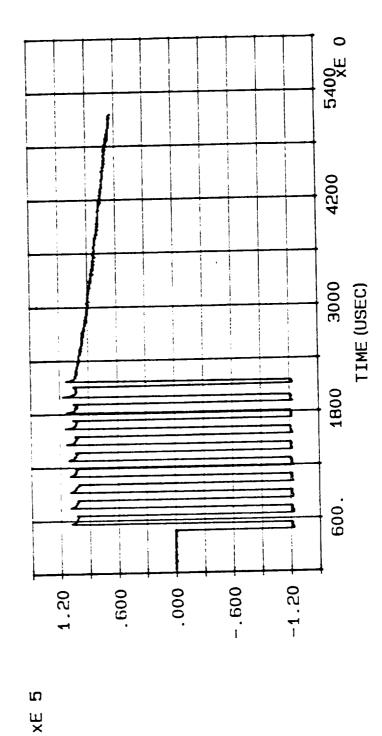
C:\HCI\H_CHAN1.090

datap FILE:

MAX CURRENT ==

-1.243E5

4.269E7 n ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #317, ATTACH POINT: BOND STRAP #12, DISCHARGE #90

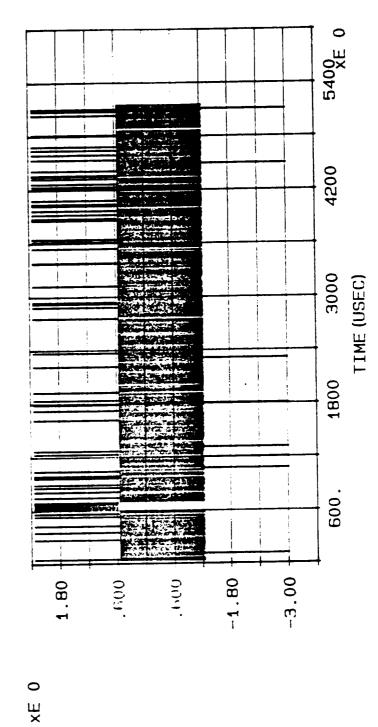
05/23/90

DATE: TIME:

18: 04: 02.16

C:\HCI\H_CHAN2.090 datap FILE:

5.247E-3 -3.018E0 П ACTION INTEGRAL MAX CURRENT



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SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #317), PLOT #318, ATTACH POINT: BOND STRAP #12, DISCHARGE #90

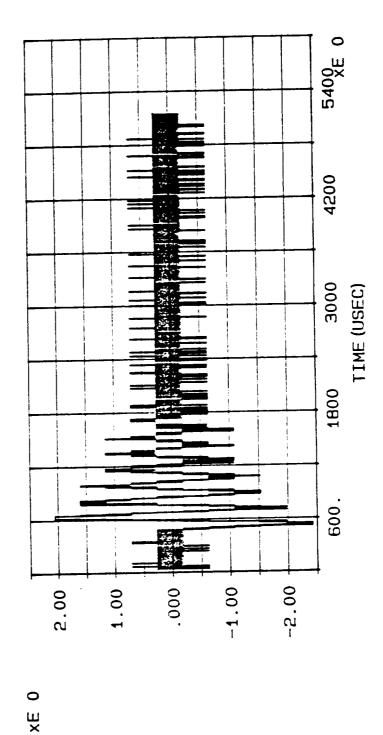
05/53/30

DATE:

C:\HCI\H_CHAN3.090 18: 04: 02.16 TIME:

-2.869E0 MAX CURRENT = datap FILE:

1.412E-3 ACTION INTEGRAL =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #317), PLOT #319, ATTACH POINT: BOND STRAP #12, DISCHARGE #90

COMPOSITE CURRENT BANK: HIGH CURRENT

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TIME: 18: 14: 1

18: 14: 15.46

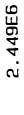
datap FILE: C:\HCI\F

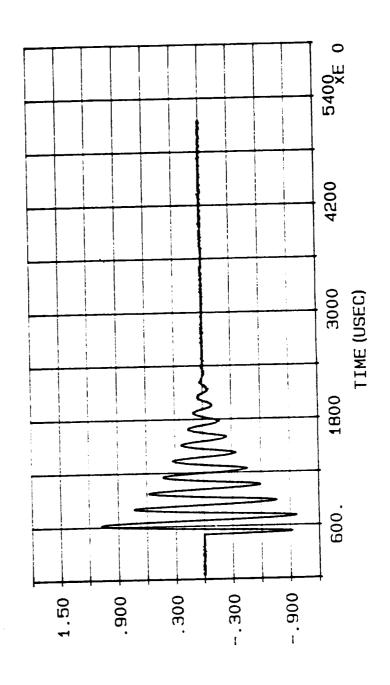
C:\HCI\H_CHAN1.091

MAX CURRENT = 1.

1.076E5

ACTION INTEGRAL = 2.





SAMA

INJECTION CURRENT WAVEFORM, PLOT #320, ATTACH POINT: BOND STRAP #13, DISCHARGE #91

xE 5

05/53/30

DATE: TIME:

18: 14: 15.46

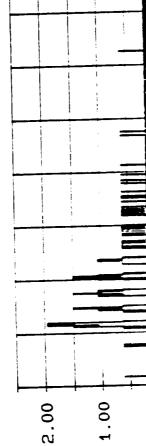
datap FILE:

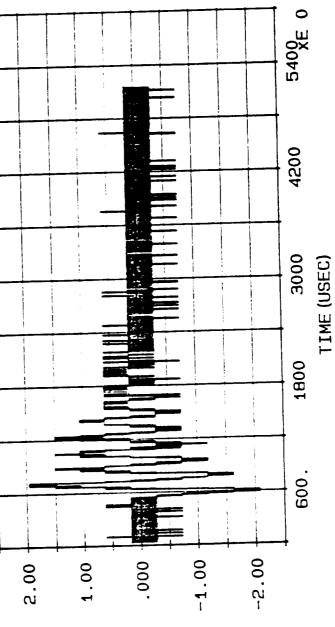
C:\HCI\H_CHAN2.091

MAX CURRENT

2.406E0

1.053E-3 II ACTION INTEGRAL





SHMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #320), PLOT #321, ATTACH POINT: BOND STRAP #13, DISCHARGE #91

0 Ж

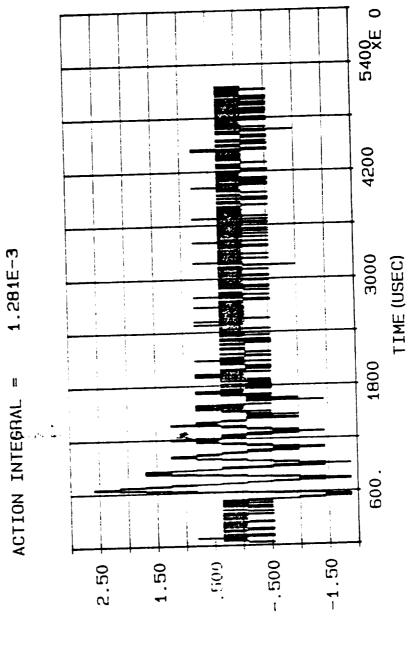
DATE: 05/23/90

TIME: 18: 14: 15.46

datap FILE: C:\HCI\H_CHAN3.091

ap FILE: C. MICHALLE

MAX CURRENT = 3.045E0



SEWY

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #320), PLOT #322, ATTACH POINT: BOND STRAP #13, DISCHARGE #91

XE 0

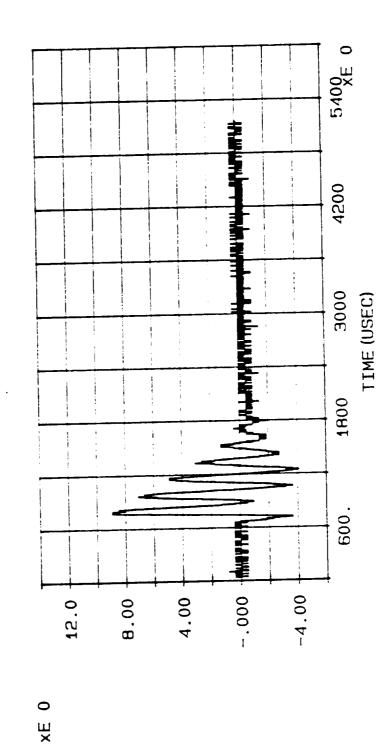
05/24/90 DATE:

TIME:

15: 18: 58.82

C:\HCI\H_CHAN2.092 datap FILE:

1.221E-2 9.355E0 II ACTION INTEGRAL MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (FLOT #323), PLOT #324, ATTACH POINT: BOND STRAP #4, DISCHARGE #92

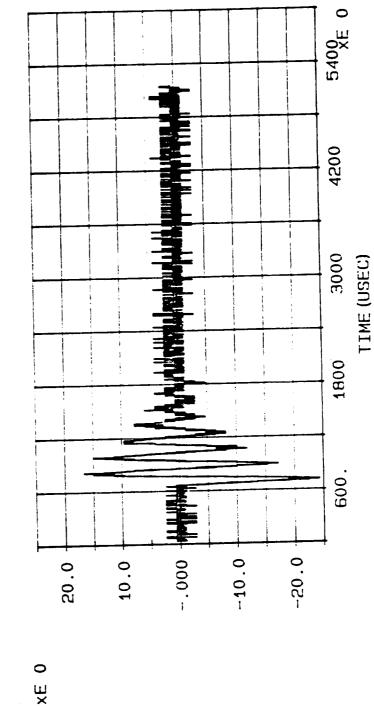
05/24/90

15: 18: 58.82 DATE: TIME:

C:\HCI\H_CHAN3.092

datap FILE:

7.078E-2 -2.429E1 II ACTION INTEGRAL MAX CURRENT



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #323), PLOT #325, ATTACH POINT: BOND STRAP #4, DISCHARGE #92

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #326, ATTACH POINT: BOND STRAP #?, DISCHARGE #93

COMPUSITE CURRENT BANK: HIGH CURRENT

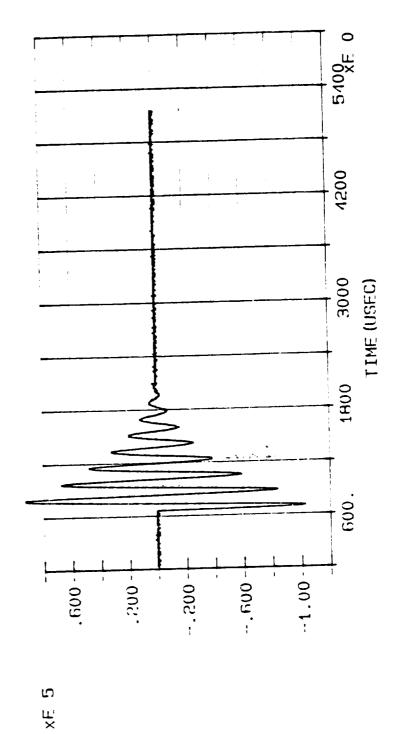
05/52/30 DATE:

10: 50: 27.19 TIME:

C:\HCI\H_CHAN1.093

-1.029E5 MAX CURRENT = datap FILE:

1.805E6 ACTION INTEGRAL = :



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COMPOSITE CURRENT BANK: INTERMEDIATE CURRENT

05/25/90 DATE:

TIME:

10: 50: 27.19 datap FILE:

C:\HCI\H_CHAN5.093

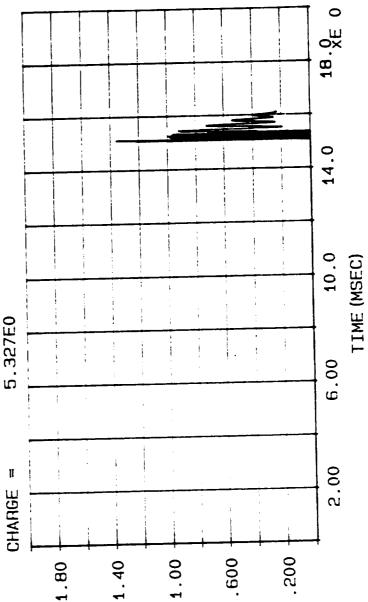
MAX CURRENT

1.360E4

11

3.117E4 ACTION INTEGRAL

5.327E0 II CHARGE 1.80



SAMA

INJECTION CURRENT WAVEFORM (INTERMEDIATE CURRENT BANK), PLOT #327, ATTACH POINT: BOND STRAP #?, DISCHARGE #93

×E

COMPOSITE CURRENT BANK: CONTINUING CURRENT

05/52/50 DATE:

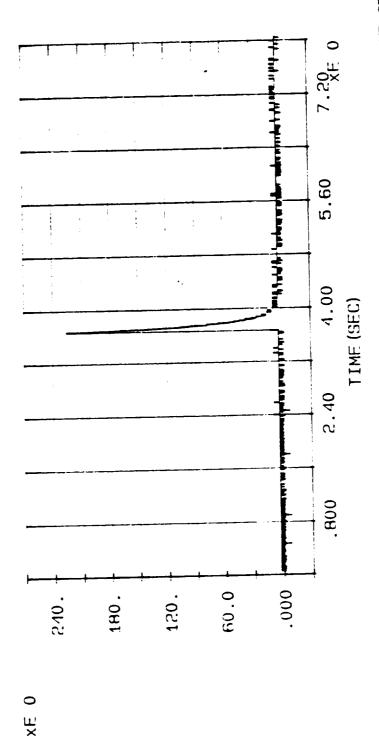
10: 50: 27.19 TIME: C:\HCI\H_CHAN6.093 datap FILE:

MAX CURRENT ==

3.500E2

CHARGE ==

3.657E1



SUMY

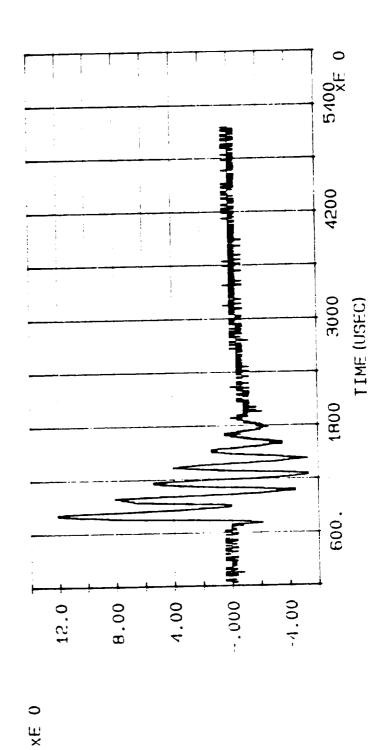
INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #328, ATTACH POINT: BOND STRAP #?, DISCHARGE #93

DATE: 05/25/90

TIME: 10: 50: 27.19

tan FILE: C:\HCI\H_CHAN2.093

datap FILE: C:\HCI\H_CHAN MAX CURRENI = 1.213E1 ACTION INTEGRAL = 2.080E-2



SHWA

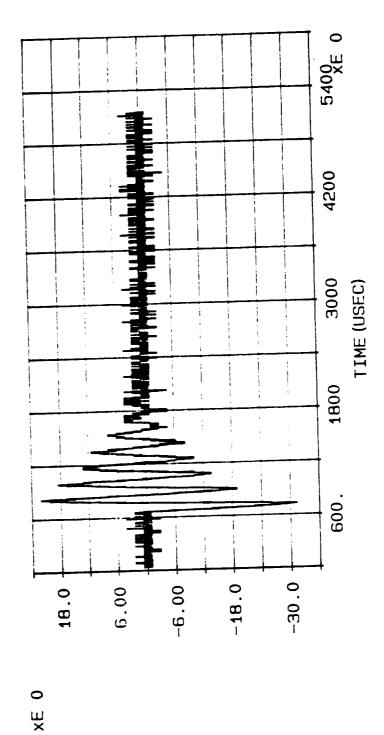
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #326, #327 AND #328), PLOT #329, ATTACH POINT: BOND STRAP #?, DISCHARGE #93

05/25/90

♠ 10: 50: 27.19 TIME: DATE:

C:\HCI\H_CHAN3.093 datap FILE:

-3.135E1 MAX CURRENT 1.185E-1 I ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #326, #327 AND #328), PLOT #330, ATTACH POINT: BOND STRAP #?, DISCHARGE #93

INJECTION CURRENT WAVEFORM (HIGH CURRENT BANK), PLOT #331, ATTACH POINT: BOND STRAP #5, DISCHARGE #96

COMPOSITE CURRENT BANK: HIGH CURRENT

05/30/30 DATE:

TIME:

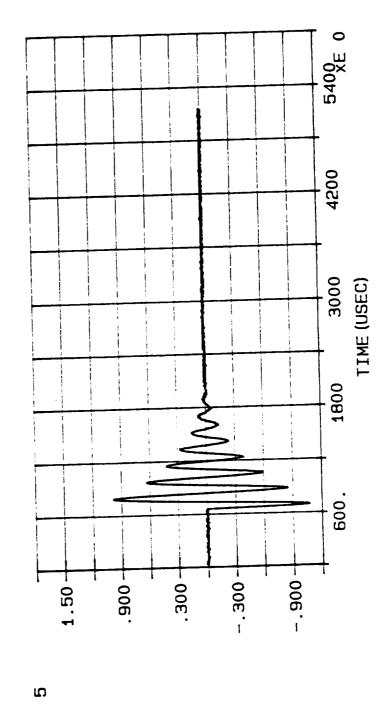
11: 22: 49.41

datap FILE:

C:\HCI\H_CHAN1.096

-1.068E5 II MAX CURRENT

1.778E6 ACTION INTEGRAL =



SAMA

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COMPOSITE CURRENT BANK: CONTINUING CURRENT

DATE: 05/30/90

TIME: 11: 22: 49.41

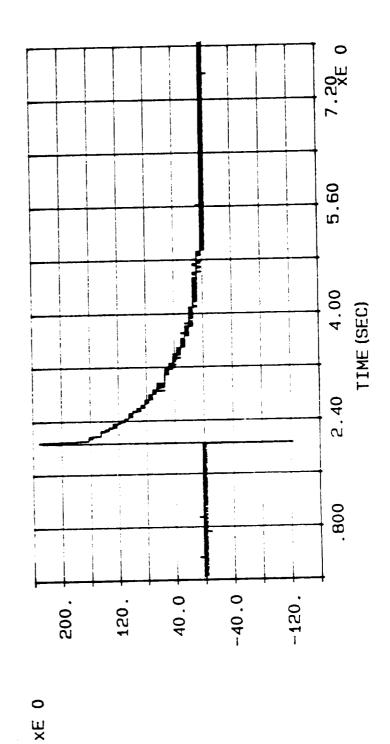
datap FILE: C:\HCI\H_CHAN6.096

MAX CURRENT = 2.

2.313E2







INJECTION CURRENT WAVEFORM (CONTINUING CURRENT BANK), PLOT #332, ATTACH POINT: BOND STRAP #5, DISCHARGE #96

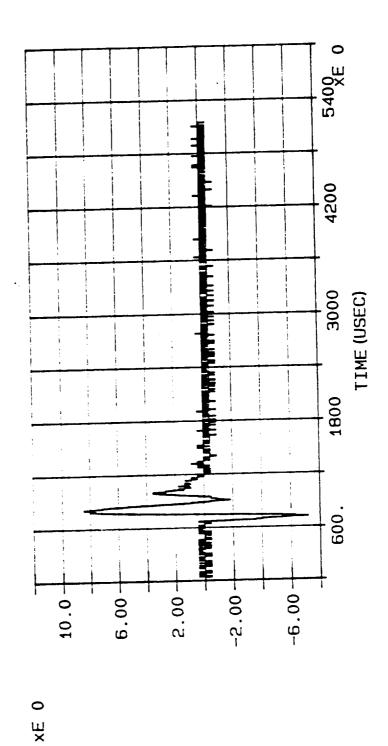
DATE: 05/30/90

TIME: 11: 22: 49.41

datap FILE: C:\HCI\H_CHAN2.096

datap FILE. 8.489E0

ACTION INTEGRAL = 7.769E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #331 AND #332), PLOT #333, ATTACH POINT: BOND STRAP #5, DISCHARGE #96

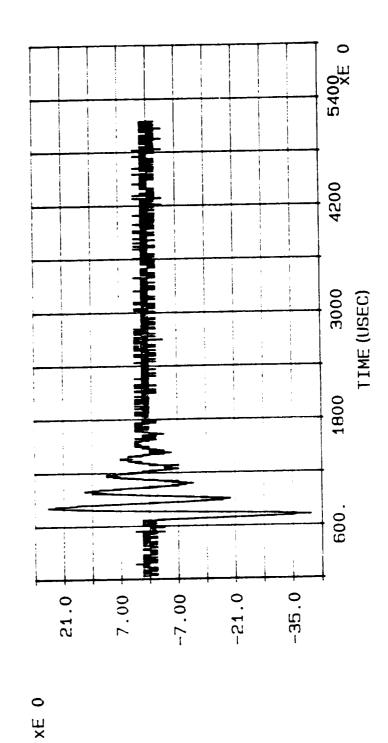
DATE: 05/30/90

TIME: 11: 22: 49.41

datap FILE: C:\HCI\H_CHAN3.096

MAX CURRENT = -3.933E1

ACTION INTEGRAL = 1.341E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #331 AND #332), PLOT #334, ATTACH POINT: BOND STRAP #5, DISCHARGE #96

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 05/30/90

TIME: 15: 44:

15: 44: 37.34

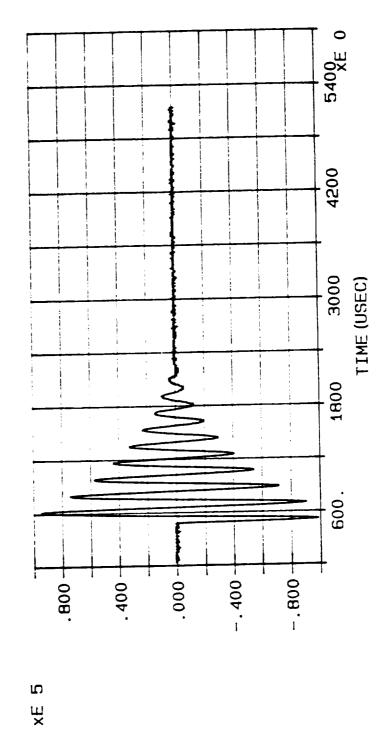
datap FILE: C:\HCI\

C:\HCI\H_CHAN1.097

MAX CURRENT = -9.836E

-9.836E4

ACTION INTEGRAL = 2.250E6



INJECTION CURRENT WAVEFORM, PLOT #335, ATTACH POINT: BOND STRAP #9, DISCHARGE #97

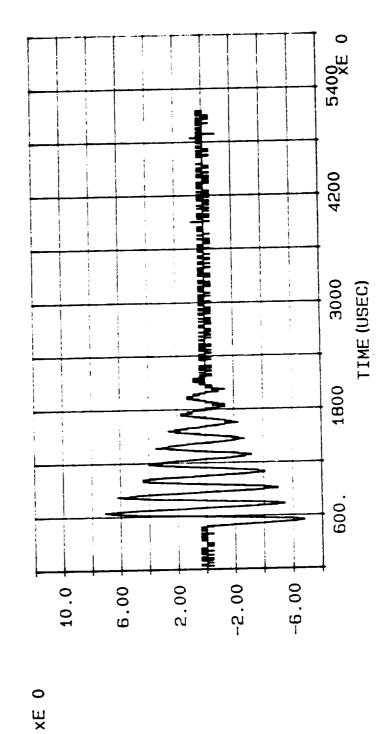
DATE: 05/30/90

TIME: 15: 44: 37.34

datap FILE: C:\HCI\H_CHAN2.097

MAX CURRENT = 7.125E0

ACTION INTEGRAL = 1.242E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #335), PLOT #336, ATTACH POINT: BOND STRAP #9, DISCHARGE #97

06/06/50

15: 44: 37.34 DATE: TIME:

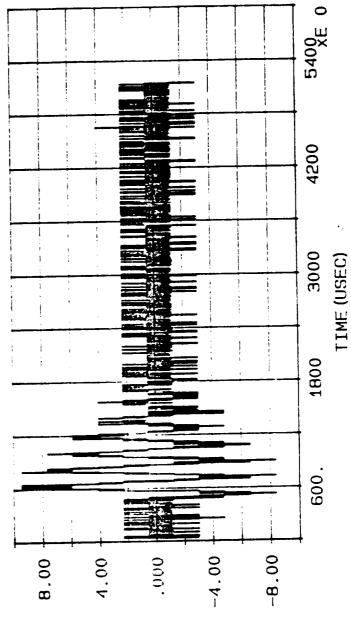
C:\HCI\H_CHAN3.097 datap FILE:

MAX CURRENT ==

1.123E1

2.458E-2 ACTION INTEGRAL =

xE 0



SHWA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #335), PLOT #337, ATTACH POINT: BOND STRAP #9, DISCHARGE #97

COMPOSITE CURRENT BANK: HIGH CURRENT

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16:01:05.34

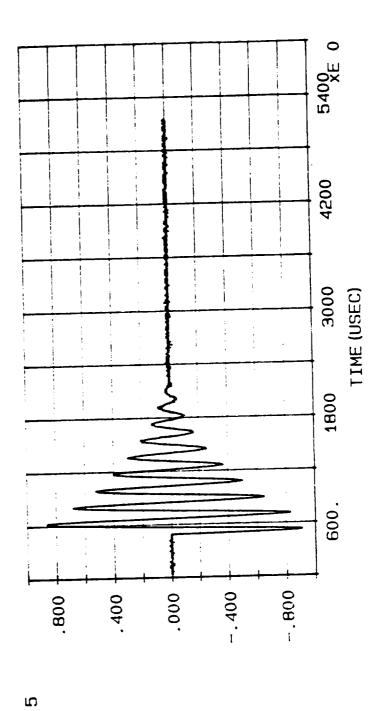
datap FILE:

C:\HCI\H_CHAN1.098

MAX CURRENT ==

-9.196E4





SAMA

INJECTION CURRENT WAVEFORM, PLOT #338, ATTACH POINT: BOND STRAP #9, DISCHARGE #98

X H

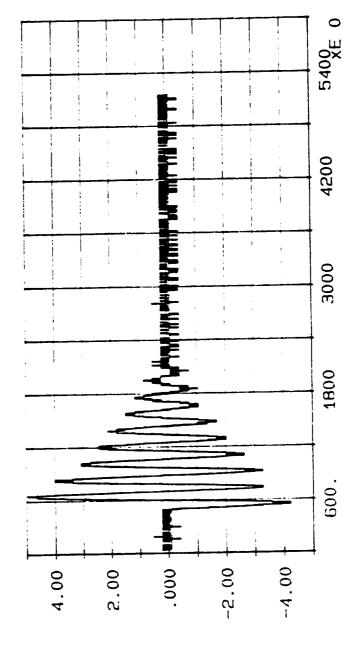
DATE: 05/30/90

TIME: 16: 01: 05.34

datap FILE: C:\HCI\H_CHAN2.098

MAX CURRENT = 4.972E0

ACTION INTEGRAL = 5.475E-3



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORMS (PLOT #338), PLOT #339, ATTACH POINT: BOND STRAP #9, DISCHARGE #98

TIME (USEC)

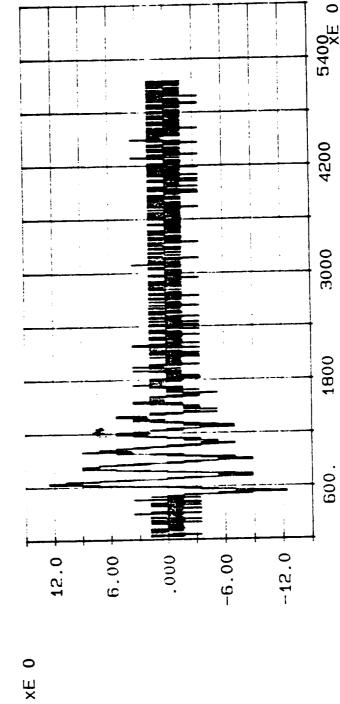
XE O

05/30/30 DATE:

16: 01: 05.34 TIME: C:\HCI\H_CHAN3.098

1.256E1 MAX CURRENT; = datap FILE:

3.415E-2 11 ACTION INTEGRAL



5∃MA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORMS (PLOT #338), PLOT #340. ATTACH POINT: BOND STRAP #9, DISCHARGE #98

TIME (USEC)

COMPOSITE CURRENT BANK: HIGH CURRENT

05/31/90 DATE:

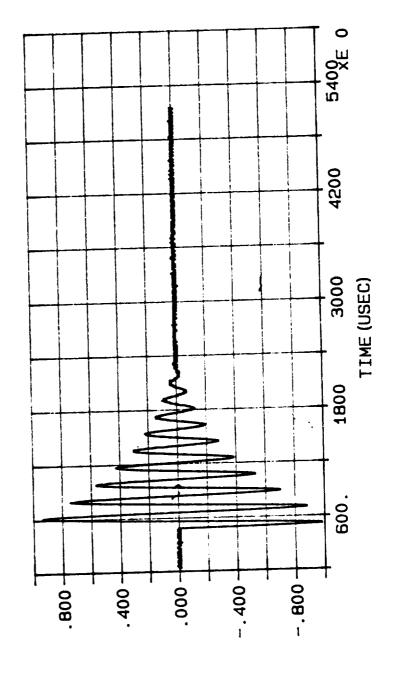
TIME:

10: 09: 15.55

C:\HCI\H_CHAN1.100

datap FILE:

-9.927E4 MAX CURRENT = 2.200E6 11 ACTION INTEGRAL



SAMA

INJECTION CURRENT WAVEFORM, PLOT #341, ATTACH POINT: BOND STRAP #9, DISCHARGE #100

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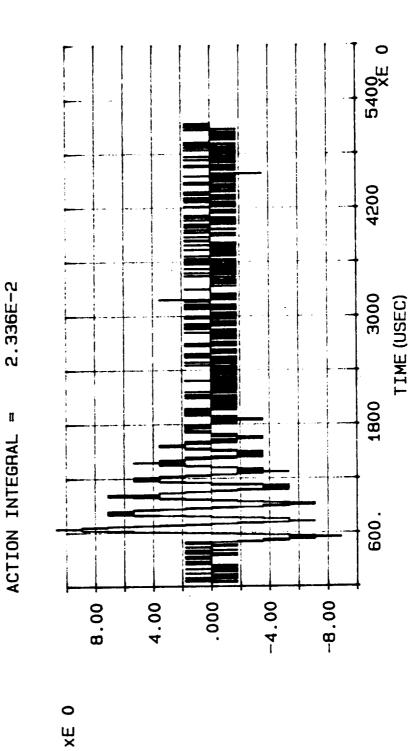
05/31/90 DATE:

10:09:15.55 TIME:

C:\HCI\H_CHAN2.100 datap FILE:

1.250E1 11 MAX CURRENT

11



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #341), PLOT #342, ATTACH POINT: BOND STRAP #9, DISCHARGE #100

DATE: 05/31/90

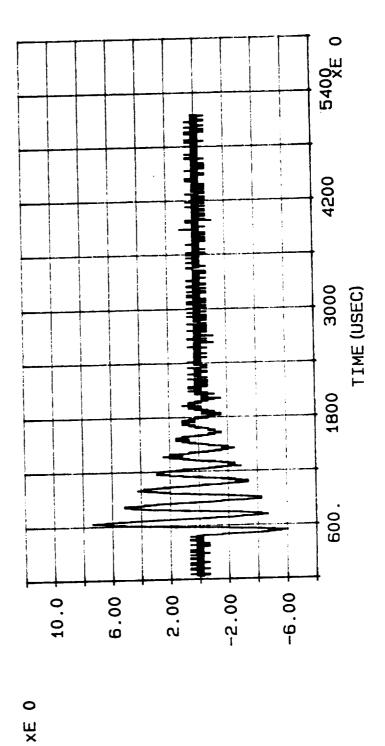
TIME: 10: 09: 15.55

datap FILE: C:\HCI\H_CHAN3.100

MAX CURRENT = 7.403

7.403E0

ACTION INTEGRAL = 9.710E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #341), PLOT #343, ATTACH POINT: BOND STRAP #9, DISCHARGE #100

COMPOSITE CURRENT BANK: HIGH CURRENT

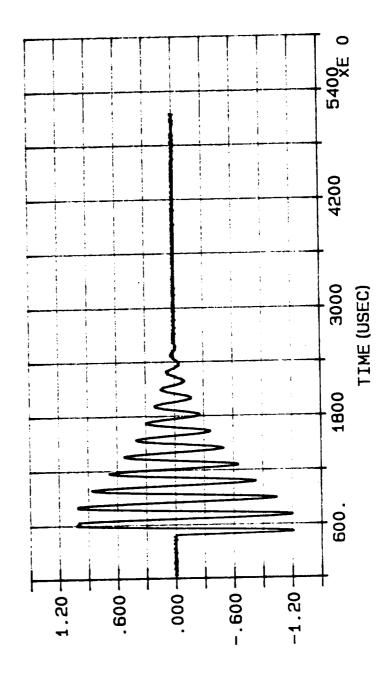
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ME: 11: 33: 53.13

TIME: 11: 33: 53.13 datap FILE: c:\HCI\H_CHAN1.101

datap FILE: C:\HCI\H_CH MAX CURRENT = -1.210E5

ACTION INTEGRAL = 4.556E6



SAMA

INJECTION CURRENT WAVEFORM, PLOT #344, ATTACH POINT: BOND STRAP #9, DISCHARGE #101

XE 5

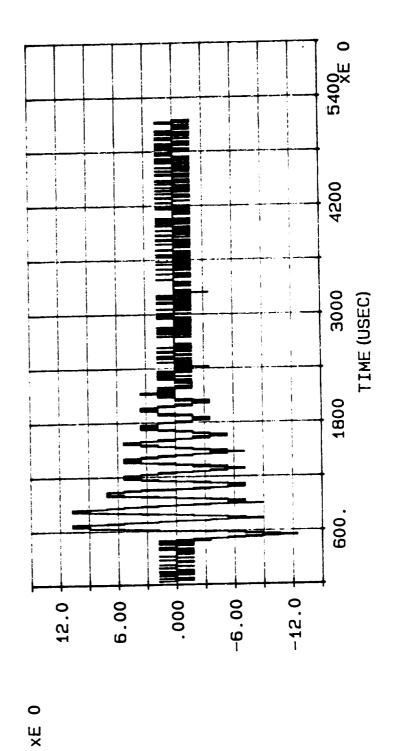
DATE: 06/01/90

TIME: 11: 33: 53.13

datap FILE: C:\HCI\H_CHAN2.101

MAX CURRENT = -1.243E1

ACTION INTEGRAL = 3.668E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #344), PLOT #345, ATTACH POINT: BOND STRAP #9, DISCHARGE #101

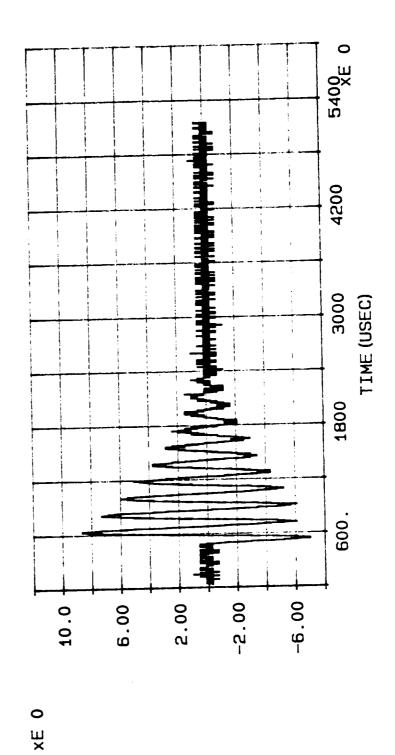
DATE: 06/01/90

TIME: 11: 33: 53.13

datap FILE: C:\HCI\H_CHAN3.101

MAX CURRENT = 8.668E0

ACTION INTEGRAL = 1.785E-2



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #344), PLOT #346, ATTACH POINT: BOND STRAP #9, DISCHARGE #101

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

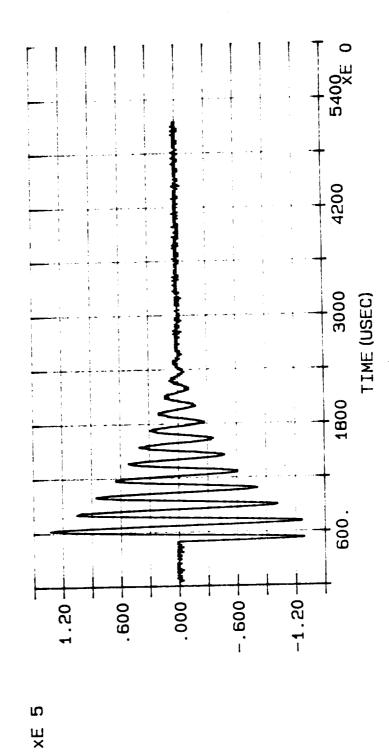
TIME:

11: 58: 21.29

C:\HCI\H_CHAN1.102 datap FILE:

1.330E5 ll MAX CURRENT





INJECTION CURRENT WAVEFORM, PLOT #347, ATTACH POINT: BOND STRAP #10, DISCHARGE #102



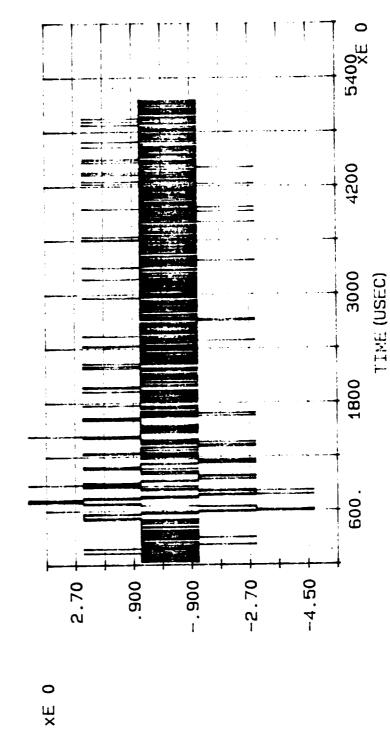
DATE: 06/01/90

TIME: 11: 58: 21.29

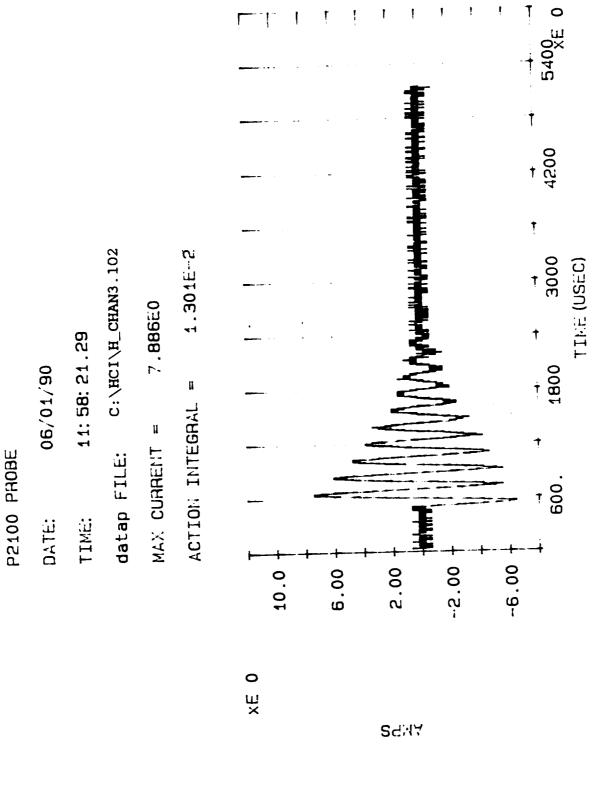
datap FILE: C:\HCI\H_CHAN2.102

MAX CURRENT = 6.025E0

ACTION INTEGRAL = 7.104E-3



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #347), PLOT #348, ATTACH POINT: BOND STRAP #10, DISCHARGE #102

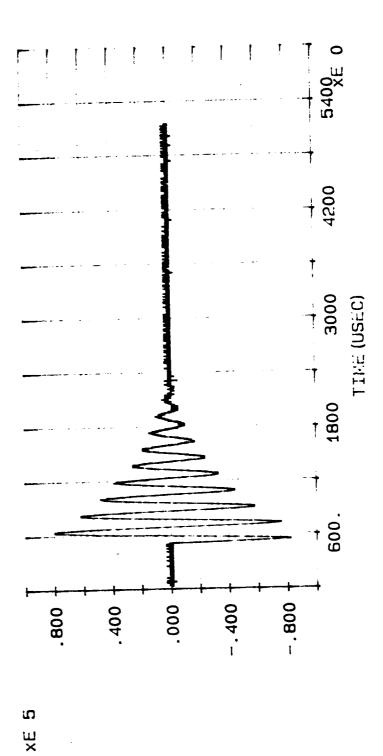


SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #347), PLOT #349, ATTACH POINT: BOND STRAP #10, DISCHARGE #102

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/30	
DATE:	

1.535E6 ACTION INTEGRAL =



SGNA

INJECTION CURRENT WAVEFORM, PLOT #350, ATTACH POINT: BOND STRAP #10, DISCHARGE #103

DATE: 06/01/90

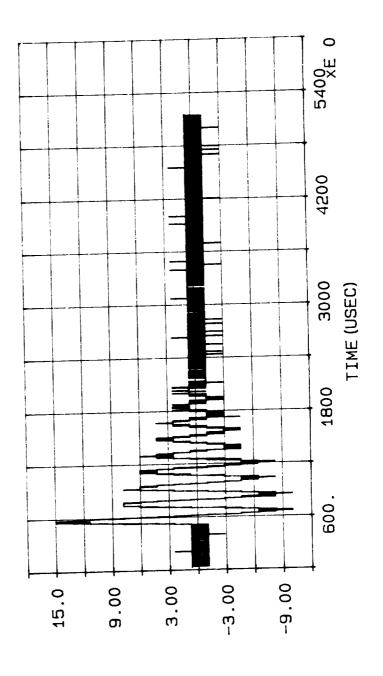
TIME: 12: 19: 01.57

Han FILE: C:\HCI\H_CHANZ.103

datap FILE: C:\HCI\H_CHAN;

MAX CURRENT = 1.496E1

ACTION INTEGRAL = 3.521E-2



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #350), PLOT #351, ATTACH POINT: BOND STRAP #10, DISCHARGE #103

×E 0

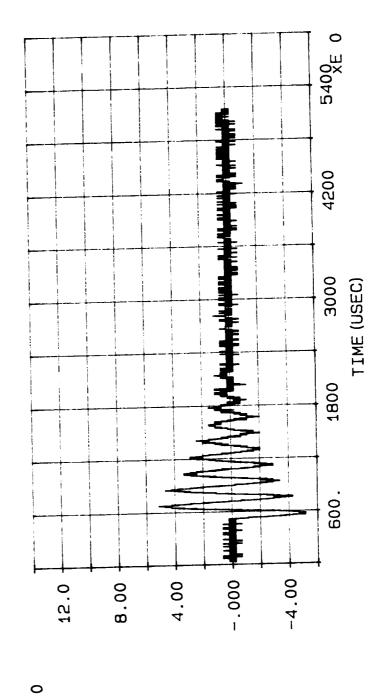
DATE: 06/01/90

TIME: 12: 19: 01.57

datap FILE: C:\HCI\H_CHAN3.103

MAX CURRENT = -5.600E0

ACTION INTEGRAL = 6.370E-3



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #350), PLOT #352, ATTACH POINT: BOND STRAP #10, DISCHARGE #103

×

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

TIME:

12: 31: 05.10

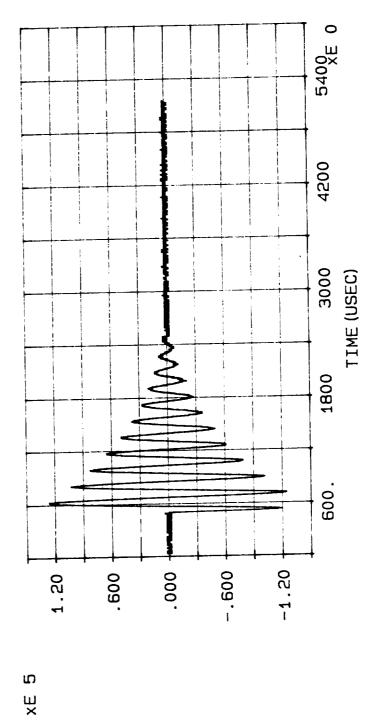
datap FILE:

C:\HCI\H_CHAN1.104

MAX CURRENT =

1.283E5





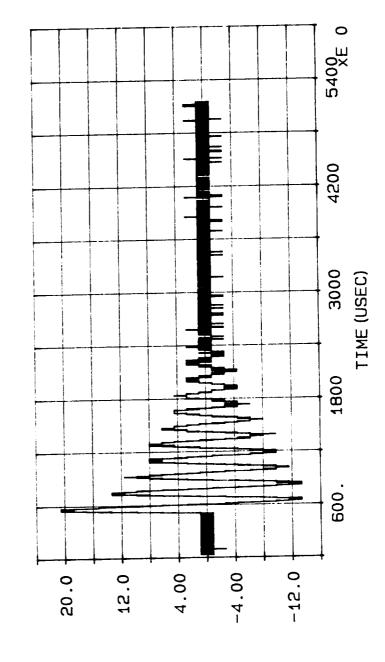
INJECTION CURRENT WAVEFORM, PLOT #353, ATTACH POINT:BOND STRAP #11, DISCHARGE #104

06/01/90

12: 31: 05.10 DATE: TIME:

C:\HCI\H_CHAN2.104 datap FILE:

2.232E1 MAX CURRENT 7.937E-2 II ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #353), PLOT #354, ATTACH POINT: BOND STRAP #11, DISCHARGE #104

xE 0

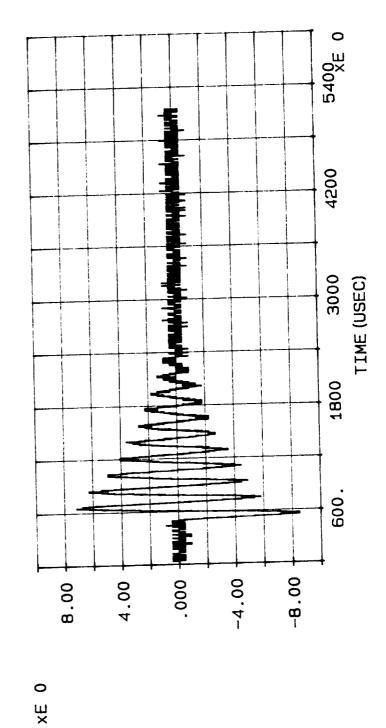
06/01/90 DATE:

12: 31: 05.10 TIME: C:\HCI\H_CHAN3.104 datap FILE:

-8.934E0

1.428E-2 11 ACTION INTEGRAL

MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #353), PLOT #355, ATTACH POINT: BOND STRAP #11, DISCHARGE #104

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

TIME:

12: 57: 06.85

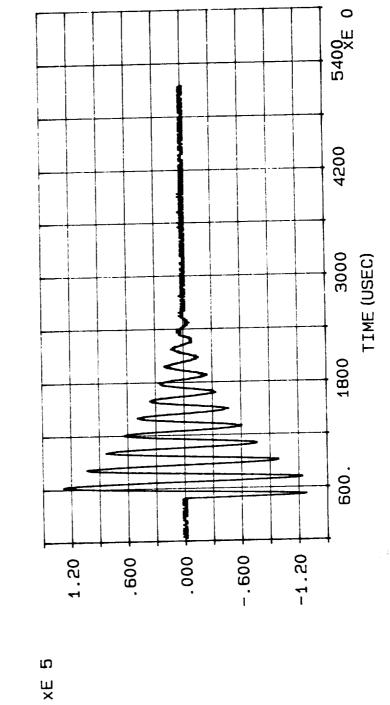
C:\HCI\H_CHAN1.105 datap FILE:

1.288E5

MAX CURRENT =

ACTION INTEGRAL =

4.515E6



**29MA** 

INJECTION CURRENT WAVEFORM, PLOT #356, ATTACH POINT: BOND STRAP #5, DISCHARGE #105

06/01/90

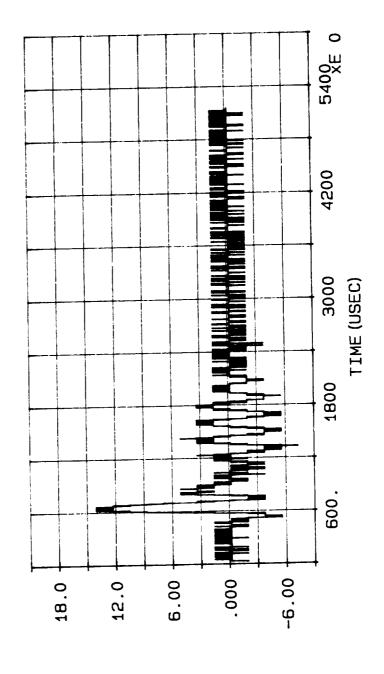
12: 57: 06.85 DATE: TIME:

C:\HCI\H_CHAN2.105 datap FILE:

MAX CURRENT =

1.407E1

2.917E-2 11 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #356), PLOT #357, ATTACH POINT: BOND STRAP #5, DISCHARGE #105

SAMA

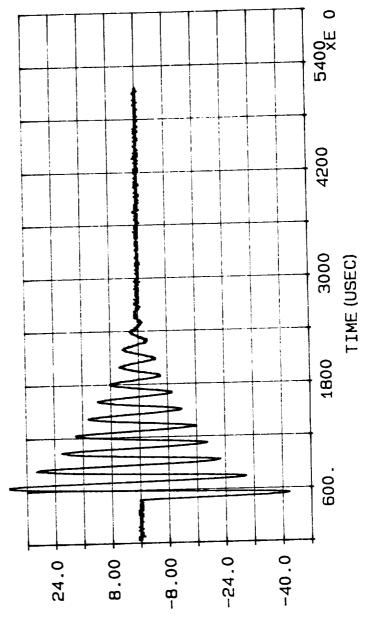
х О Э

DATE: 06/01/90

TIME: 12: 57: 06.85

datap FILE: C:\HCI\H_CHAN3.105

MAX CURRENT = -4.188E1
ACTION INTEGRAL = 3.727E-1



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #356), PLOT #358, ATTACH POINT: BOND STRAP #5, DISCHARGE #105

xE 0

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

TIME:

15: 24: 36. 45

C:\HCI\H_CHAN1.106 -9.681E4 datap FILE:

2.234E6 ACTION INTEGRAL = MAX CURRENT =

000 . 400 -.800 .800 -.400

SAMA

INJECTION CURRENT WAVEFORM, PLOT #359, ATTACH POINT: BOND STRAP #1, DISCHARGE #106

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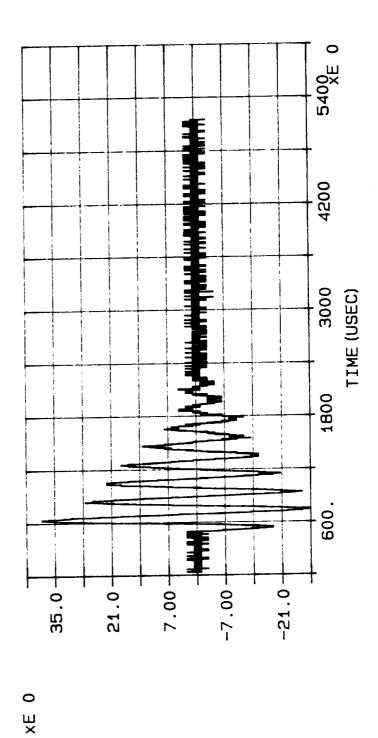
TIME: DATE:

15: 24: 36.45

C:\HCI\H_CHAN3.106

datap FILE:

4.002E1 MAX CURRENT = 2.802E-1 11 ACTION INTEGRAL



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #359), PLOT #360, ATTACH POINT: BOND STRAP #1, DISCHARGE #106

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

TIME:

15: 35: 52.08

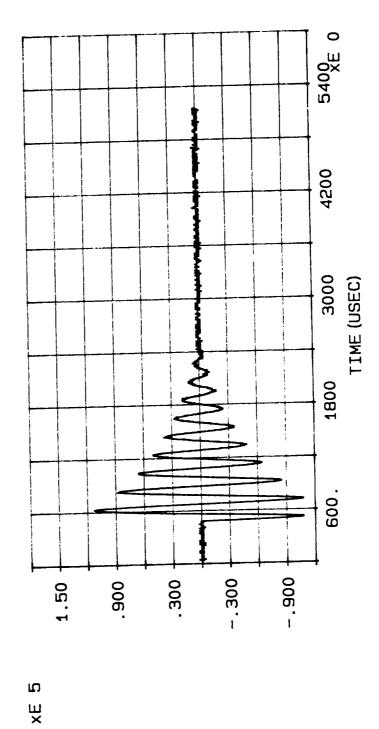
datap FILE:

C:\HCI\H_CHAN1.107

MAX CURRENT =

1.132E5

3.353E6 li ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #361, ATTACH POINT: BOND STRAP #1, DISCHARGE #107

P2100 PROBE

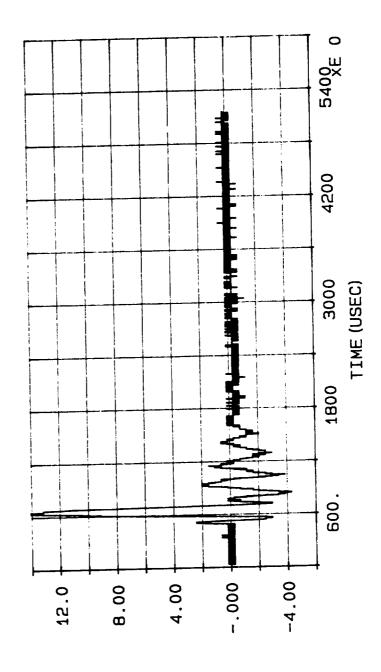
DATE: 06/01/90

TIME: 15: 35: 52.08

datap FILE: C:\HCI\H_CHAN2.107

MAX CURRENT = -5.891E1

ACTION INTEGRAL = 4.973E-2



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #361), PLOT #362, ATTACH POINT: BOND STRAP #1, DISCHARGE #107

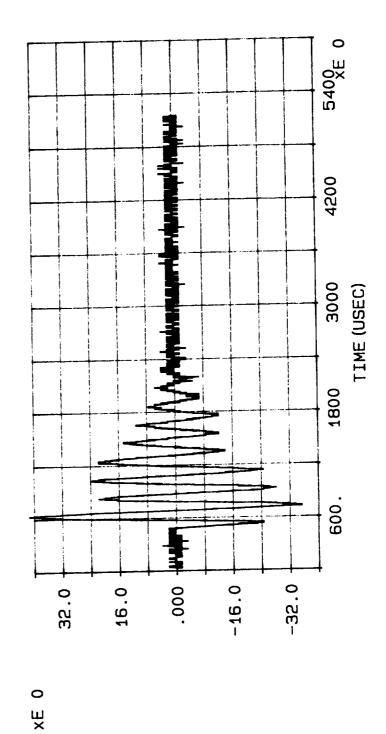
xE 0

P2100 PROBE

06/01/90

15: 35: 52.08 DATE: TIME: C:\HCI\H_CHAN3.107 datap FILE:

4.139E1 MAX CURRENT = 3.483E-1 11 ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #361), PLOT #363, ATTACH POINT: BOND STRAP #1, DISCHARGE #107

COMPOSITE CURRENT BANK: HIGH CURRENT

06/01/90 DATE:

TIME:

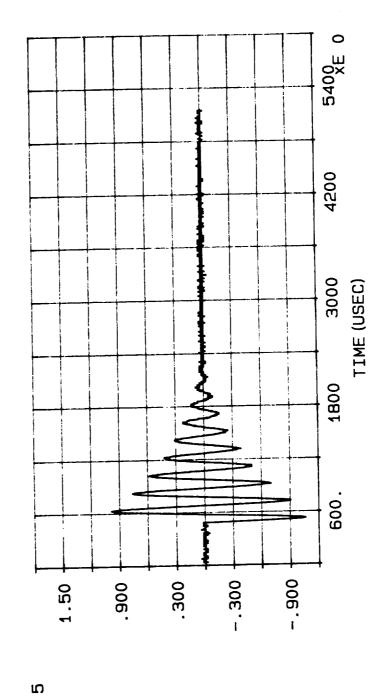
15: 53: 37.47

C:\HCI\H_CHAN1.108 datap FILE:

-1.062E5

MAX CURRENT =

2.374E6 ACTION INTEGRAL



SAMA

INJECTION CURRENT WAVEFORM, PLOT #364, ATTACH POINT: BOND STRAP #?, DISCHARGE #108

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P2100 PROBE

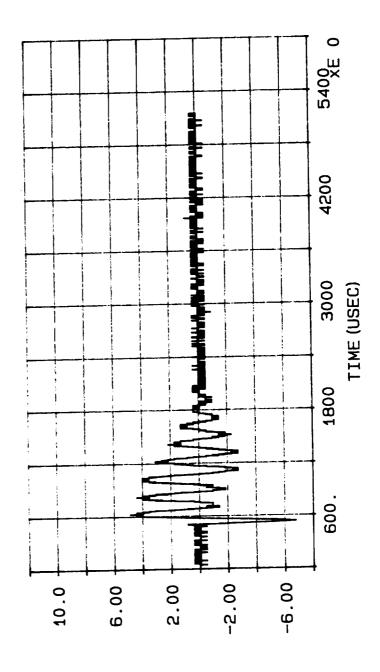
06/01/90

15: 53: 37.47 DATE: TIME: C:\HCI\H_CHAN2.108

-6.767E0 datap FILE:

MAX CURRENT =

6.688E-3 11 ACTION INTEGRAL



SGMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #364), PLOT #365, ATTACH POINT: BOND STRAP #?, DISCHARGE #108

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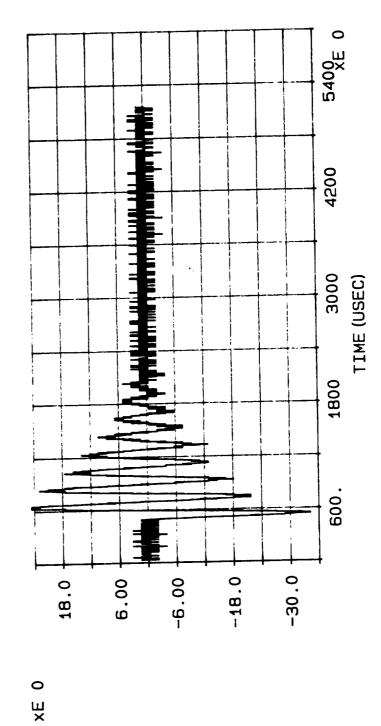
P2100 PROBE

06/01/90

15: 53: 37.47 DATE: TIME: C:\HCI\H_CHAN3.108 datap FILE:

-3.418E1 MAX CURRENT =

1.876E-1 li ACTION INTEGRAL



SAMA

SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #364), PLOT #366, ATTACH POINT: BOND STRAP #?, DISCHARGE #108

MARX MEASUREMENT: INPUT CURRENT

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TIME:

14: 13: 22.09

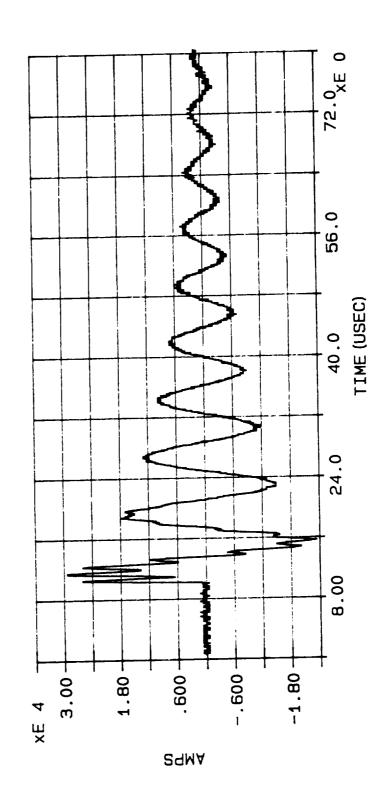
FILE:

C:\CAT\DATA4\MI300.109

3.067E4 MAX CURRENT =

ACTION INTEGRAL

3.901E3



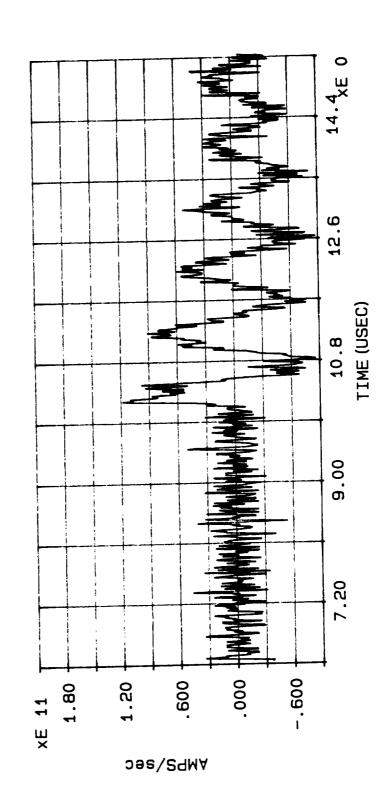
INJECTION CURRENT WAVEFORM, PLOT #367, ATTACH POINT #3, DISCHARGE #109

DATE: 06/08/90

TIME: 14: 39: 12.53

C:\CAT\DATA4\MI300.109

FILE: C:\CAT\DATA4\MI30 MAX di/dt = 1.181E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #368, ATTACH POINT #3, DISCHARGE #109

MARX MEASUREMENT: CABLE CURRENT

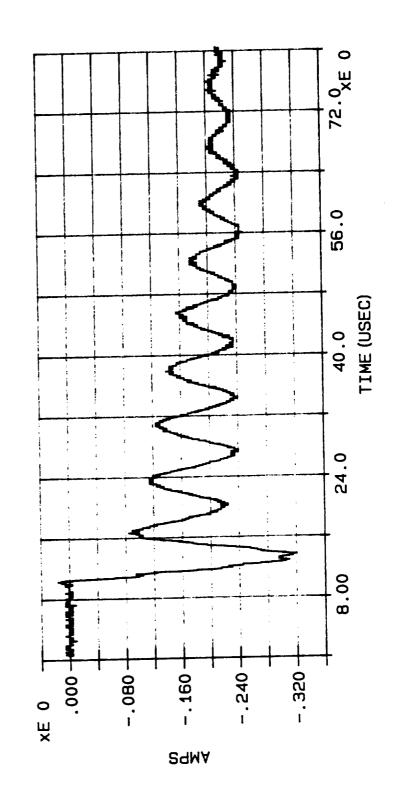
DATE: 06/08/90

TIME: 15: 46: 33.94

C:\CAT\DATA4\MC312.109

FILE:

MAX CURRENT = -3.203E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #367), PLOT #369, ATTACH POINT #3, DISCHARGE #109

MARX MEASUREMENT: CABLE CURRENT

06/80/90 DATE:

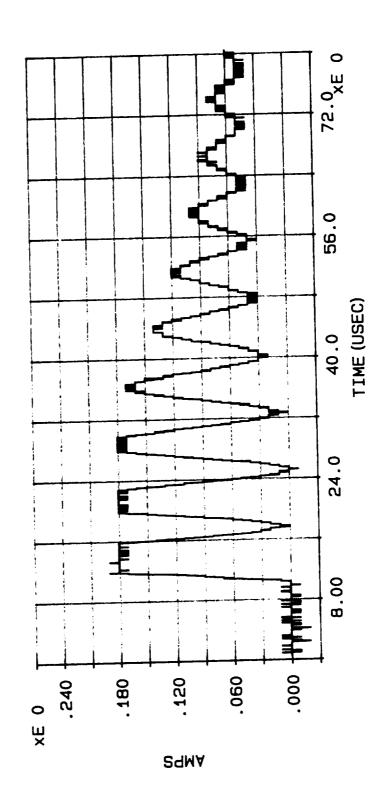
TIME:

15: 50: 24.80

FILE:

C:\CAT\DATA4\MC306.109

1.910E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #367), PLOT #370, ATTACH POINT #3, DISCHARGE #109

MARX MEASUREMENT: INPUT CURRENT

06/80/90 DATE:

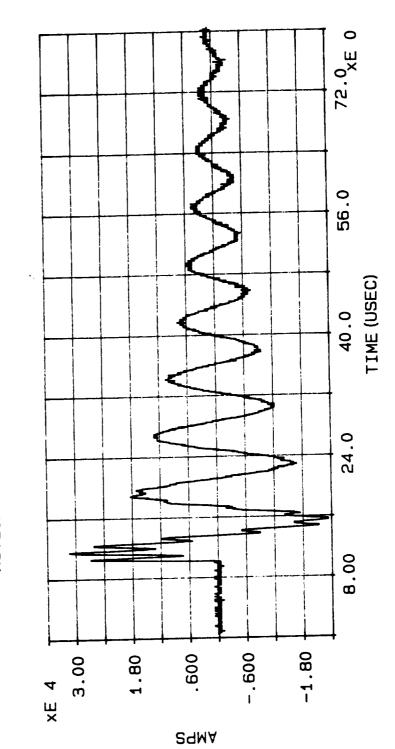
TIME:

14: 17: 35.35

C:\CAT\DATA4\MI300.110

FILE:

3.140E4 MAX CURRENT = 4.224E3 11 ACTION INTEGRAL



INJECTION CURRENT WAVEFORM, PLOT #371, ATTACH POINT #3, DISCHARGE #110

DATE: 06/08/90

TIME: 14: 4

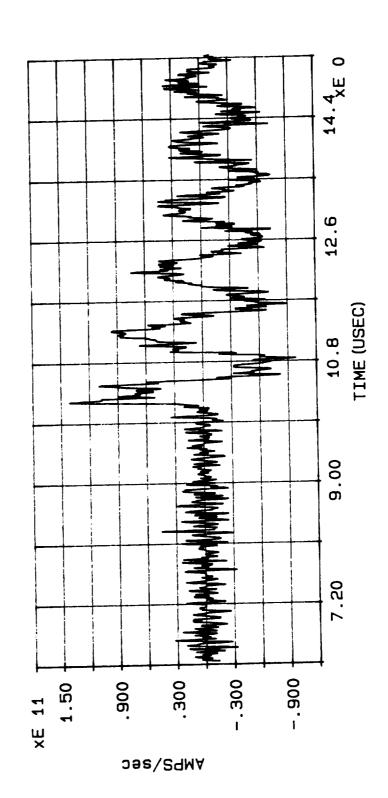
14: 42: 53.60

C:\CAT\DATA4\MI300.110

FILE:

MAX di/dt =

1.412E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #372, ATTACH POINT #3, DISCHARGE #110

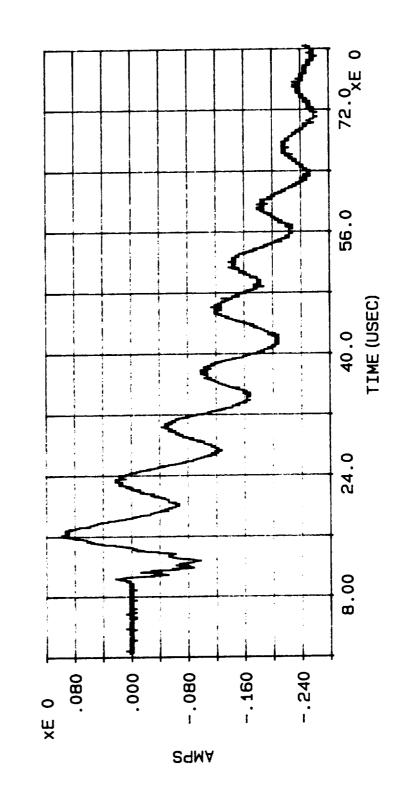
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 37: 09.86

FILE: C:\CAT\DATA4\MC312.110

MAX CURRENT = -2.634E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #371), PLOT #373, ATTACH POINT #3, DISCHARGE #110

MARX MEASUREMENT: CABLE CURRENT

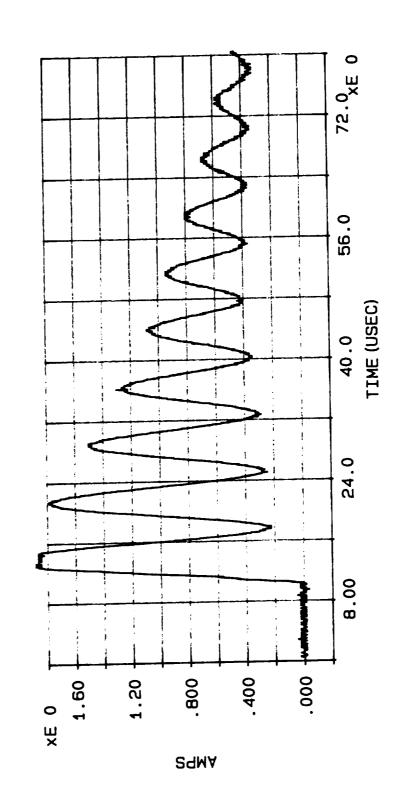
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TIME:

15: 41: 41.14 FILE:

C:\CAT\DATA4\MC306.110

1.885E0 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #371), PLOT #374, ATTACH POINT #3, DISCHARGE #110

MARX MEASUREMENT: INPUT CURRENT

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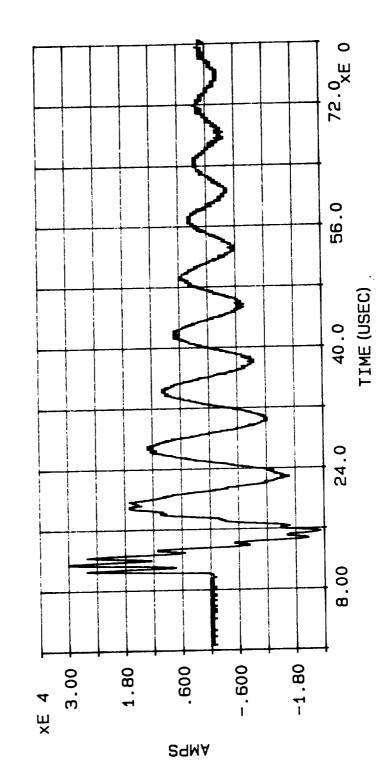
TIME:

14: 21: 49.22

C:\CAT\DATA4\MI300.111

FILE:

4.091E3 3.073E4 ACTION INTEGRAL MAX CURRENT =



INJECTION CURRENT WAVEFORM, PLOT #375, ATTACH POINT #3, DISCHARGE #111

DATE: 06/08/90

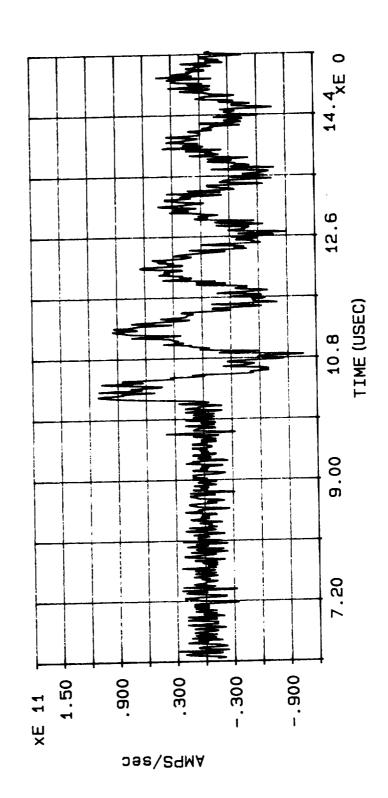
TIME: 14: 46:

14: 46: 16.06

C:\CAT\DATA4\MI300.111

FILE:

MAX di/dt = 1.112E11



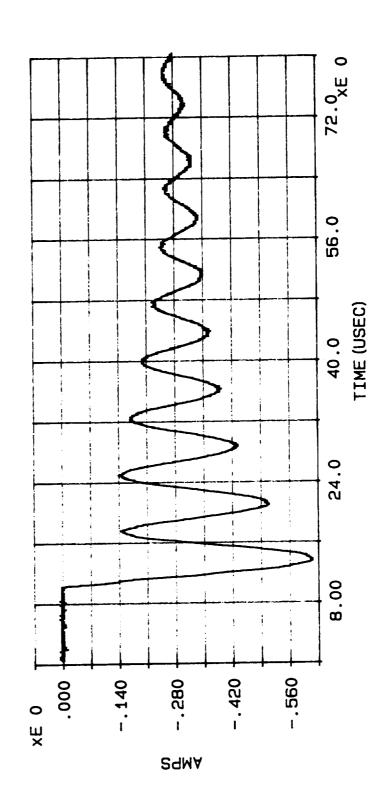
DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #376, ATTACH POINT #3, DISCHARGE #111

DATE: 06/08/90

TIME: 15: 27: 14.30

FILE: C:\CAT\DATA4\MC311.111

MAX CURRENT = -6.203E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #375), PLOT #377, ATTACH POINT #3, DISCHARGE #111

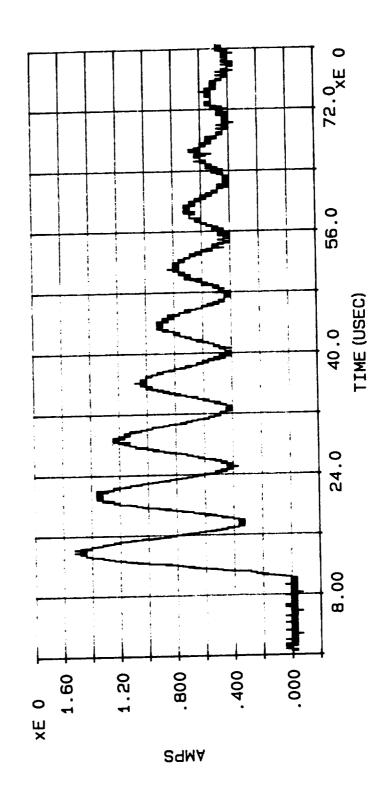
MARX MEASUREMENT: CABLE CURRENT

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TIME: 15: 31: 22.95

FILE: C:\CAT\DATA4\MC307.111

MAX CURRENT = 1.522E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #375), PLOT #378, ATTACH POINT #3, DISCHARGE #111

MARX MEASUREMENT: INPUT CURRENT

06/08/30 DATE:

14: 25: 47.70

TIME:

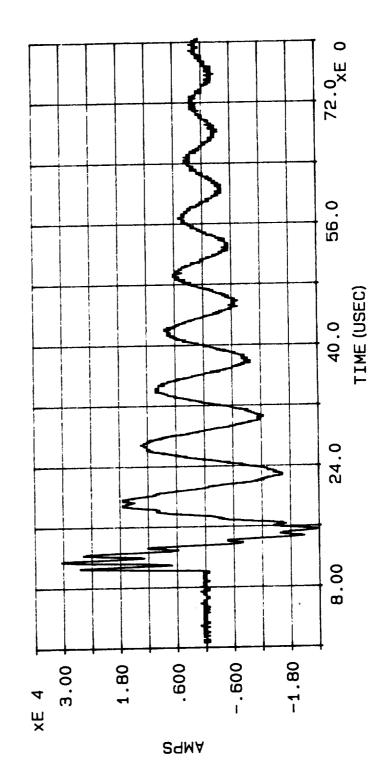
C:\CAT\DATA4\MI100.112

FILE:

3.047E4

MAX CURRENT =

4.171E3 ACTION INTEGRAL =



INJECTION CURRENT WAVEFORM, PLOT #378, ATTACH POINT #1, DISCHARGE #112

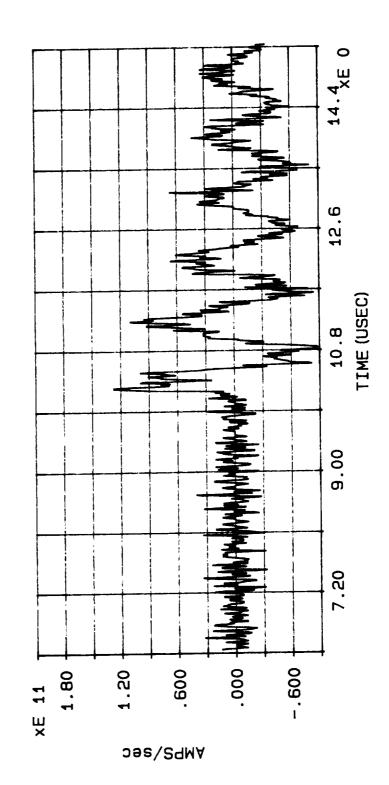
06/08/30 DATE:

TIME:

14: 49: 51.91

C:\CAT\DATA4\MI100.112

1.275E11 MAX di/dt FILE:



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #379, ATTACH POINT #1, DISCHARGE #112

06/80/90 DATE:

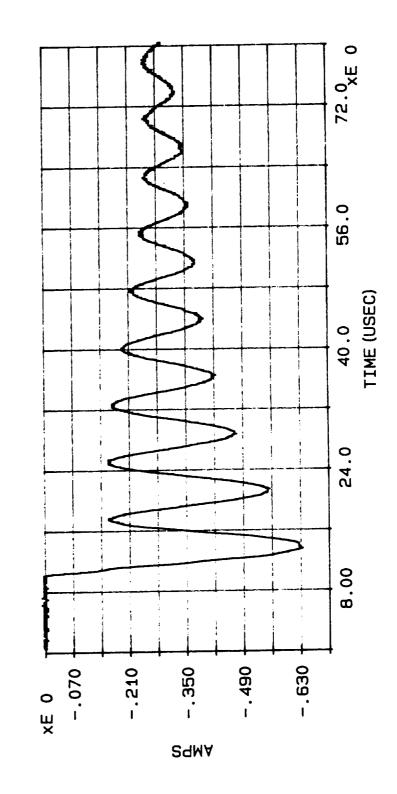
TIME:

15: 18: 26.85

C:\CAT\DATA4\MC111.112

FILE:

-6.351E-1 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #11 BY INJECTION CURRENT WAVEFORM (PLOT #378), PLOT #380, ATTACH POINT #1, DISCHARGE #112

MARX MEASUREMENT: CABLE CURRENT

06/80/90 DATE:

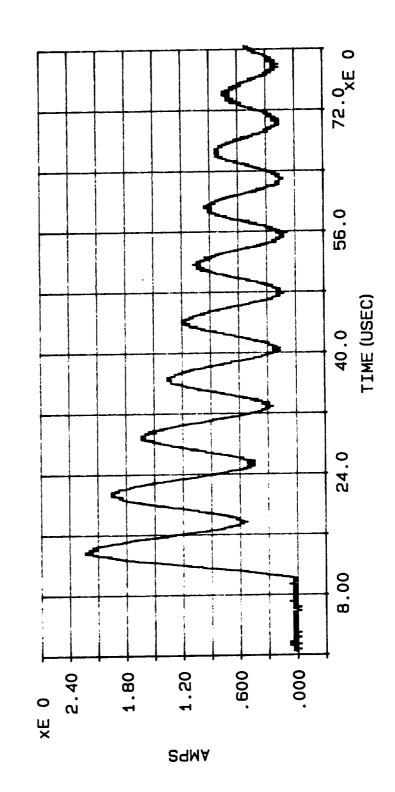
TIME:

15: 22: 36.49

FILE:

C:\CAT\DATA4\MC307.112

2.238E0 MAX CURRENT =



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #7 BY INJECTION CURRENT WAVEFORM (PLOT #378), PLOT #381, ATTACH POINT #1, DISCHARGE #112

MARX MEASUREMENT: INPUT CURRENT

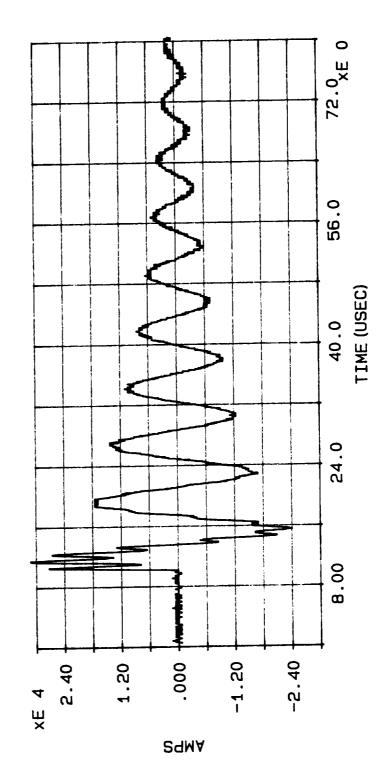
06/80/90 DATE:

14: 29: 56.08 TIME:

C:\CAT\DATA4\MI100.113

FILE:

4.493E3 3.188E4 II ACTION INTEGRAL MAX CURRENT =



INJECTION CURRENT WAVEFORM, PLOT #382, ATTACH POINT #1, DISCHARGE #113

06/80/90 DATE:

TIME:

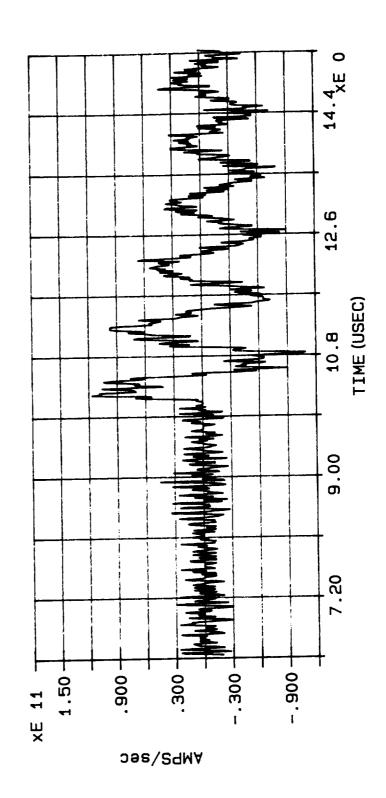
14: 54: 35.99

C:\CAT\DATA4\MI100.113

FILE:

MAX di/dt

1.168E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #383, ATTACH POINT #1, DISCHARGE #113

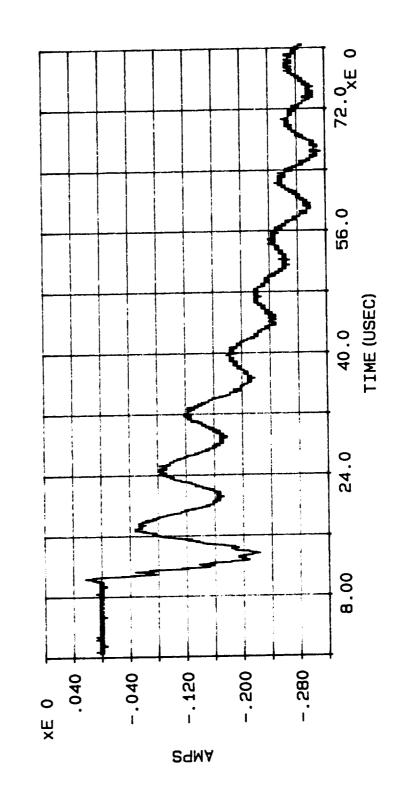
DATE: 06/08/90

TIME: 15: 10: 19

15: 10: 19.50

FILE: C:\CAT\DATA4\MC112.113

MAX CURRENT = -3.136E-1



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #382), PLOT #384, ATTACH POINT #1, DISCHARGE #113

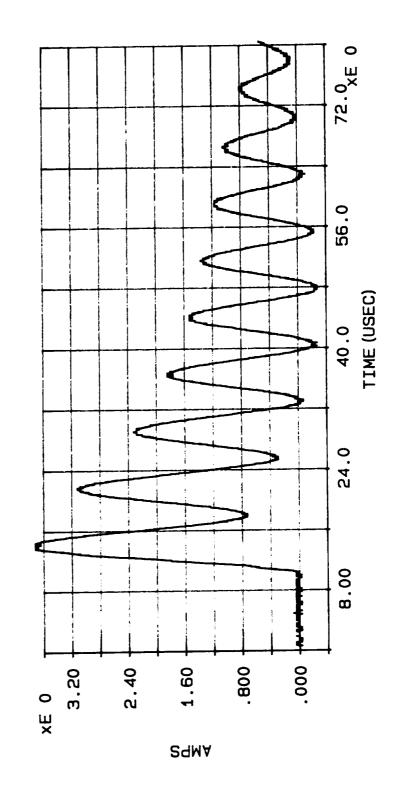
06/80/90 DATE:

15: 14: 31.22 TIME:

C:\CAT\DATA4\MC106.113

FILE:

3.721E0 MAX CURRENT =



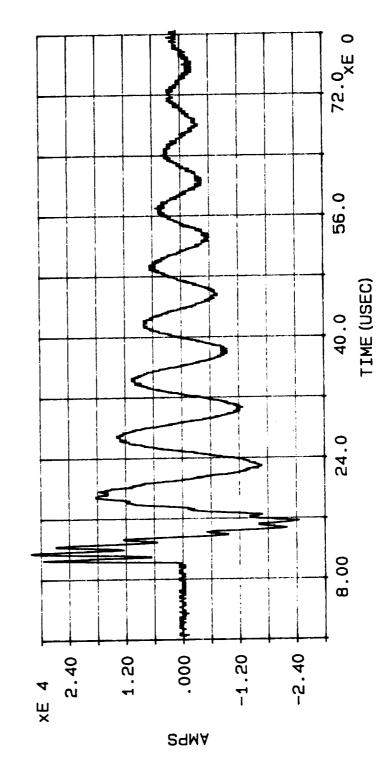
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #382), PLOT #385, ATTACH POINT #1, DISCHARGE #113

MARX MEASUREMENT: INPUT CURRENT

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3.270E4

MAX CURRENT =



INJECTION CURRENT WAVEFORM, PLOT #386, ATTACH POINT #2, DISCHARGE #114

06/08/30 DATE:

TIME:

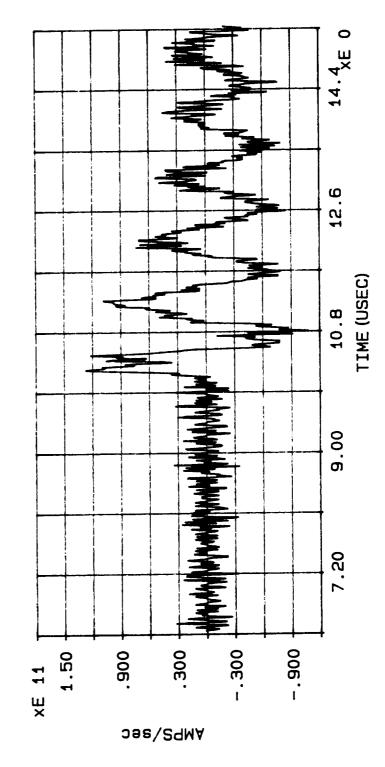
14: 58: 04.76

C:\CAT\DATA4\MI200.114

FILE:

MAX di/dt

1.275E11



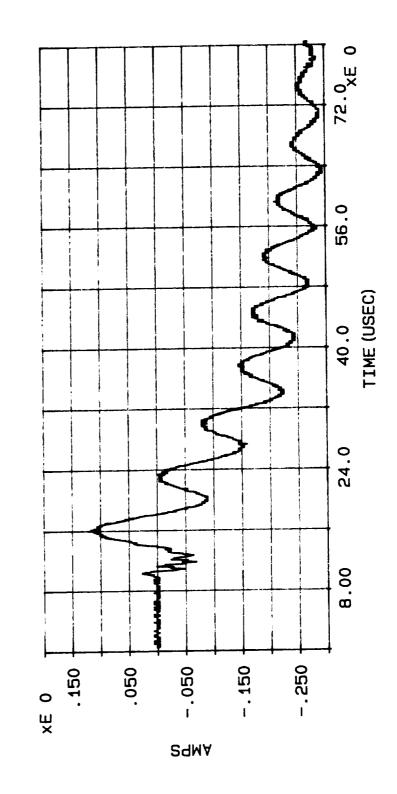
DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #387, ATTACH POINT #2, DISCHARGE #114

DATE: 06/08/90

TIME: 15: 06: 05.03

FILE: C:\CAT\DATA4\MC212.114

MAX CURRENT = -2.999E-1



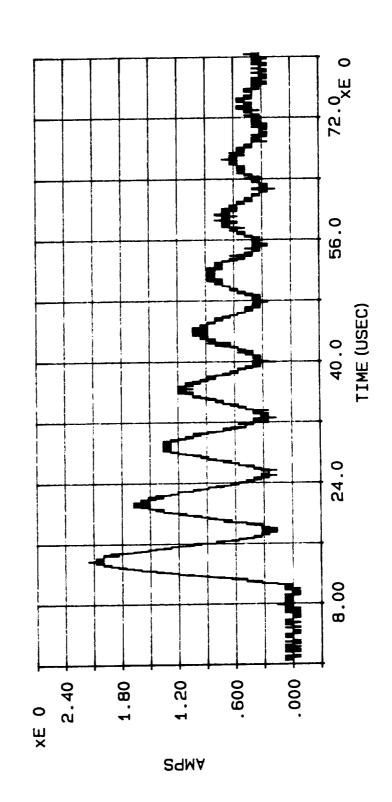
SHORT CIRCUIT CURRENT INDUCED INTO CABLE #12 BY INJECTION CURRENT WAVEFORM (PLOT #386), PLOT #388, ATTACH POINT #2, DISCHARGE #114

DATE: 06/08/90

TIME: 15: 01: 54.57

FILE: C:\CAT\DATA4\MC206.114

MAX CURRENT = 2.156E0



SHORT CIRCUIT CURRENT INDUCED INTO CABLE #6 BY INJECTION CURRENT WAVEFORM (PLOT #386), PLOT #389, ATTACH POINT #2, DISCHARGE #114